1992-93
DePaul University Bulletin
Graduate Programs

College of Liberal Arts and Sciences
Schmitt Academic Center
2323 North Seminary Avenue Fifth Floor, SW
Chicago, Illinois 60614 (312) 362-8880

School of Education
Schmitt Academic Center
2323 North Seminary Avenue—Fifth Floor, NE
Chicago, Illinois 60614
(312) 362-8107

School of Music
The School of Music Building
804 W. Belden
	Chicago, Illinois 60614
(312) 362-8373

School for New Learning
650 O’Malley Place
23 East Jackson Boulevard
Chicago, Illinois 60604
(312) 362-8001

The Theatre School
Founded as the Goodman School of Drama in 1925
The Theatre School Building
2135 N. Kenmore Avenue
Chicago, Illinois 60614
(312) 362-8374

To obtain a 1992-93 Bulletin for the Graduate School of Business call (312) 362-8810, or for the College of Law call (312) 362-8701.


DePaul University does not discriminate on the basis of race, color, national origin, religion, sex, age, or handicap in admissions, employment, or the provision of services. Inquiries regarding this policy should be addressed to the Director of Human Resources, DePaul University, 243 S. Wabash, Chicago, Illinois 60604.

Editor: Gwyn Friend
President's Letter

Dear Graduate Student:

A warm welcome to graduate study at DePaul University!

This bulletin is your guide through the program of studies you have chosen. It is also a guide through the policies and regulations designed with an eye to both your needs as a graduate student and the integrity of your graduate degree.

There is another message I would like to convey. As a Catholic and a Vincentian institution DePaul stands for religious personalism. You as a person are deeply respected for your God-given dignity. We ask our faculty and staff to accord you this respect on all occasions.

We invite you to make full use of the resources the University offers graduate students, especially those that outside of the class sessions enrich your academic and personal life; for example, faculty advisement, libraries, laboratories, career planning and placement, and spiritual counseling.

You are following thousands of men and women who in their graduate studies at DePaul have found the meaning of scholarship, the paths of career advancements, and the challenge of mind-expanding experiences. May your own studies be successful in all these ways.

Sincerely,

John T. Richardson, C.M.
President
COLLEGE OF
LIBERAL ARTS
AND
SCIENCES
ADMINISTRATION
Richard J. Meister, Ph.D.
Dean
Carolyn C. Narasimhan, Ph.D.
Associate Dean for Graduate Programs
Carol Goodman-Jackson
Graduate Administrative Assistant
Randall Honold
Academic Advisor
Sheila McManus
Admissions Assistant

ACADEMIC DEPARTMENTS AND PROGRAMS

Liberal Arts and Sciences
Biological Sciences
Chemistry
Computer Science
Economics
English
History
Interdisciplinary Studies
Liberal Studies

Mathematical Sciences
Nursing
Philosophy
Physics
Psychology
Public Services
Rehabilitation Services
Sociology
Writing
PHILOSOPHY

DePaul University, founded on Judeo-Christian principles, continues to assert the relevance of these principles through higher education to modern man and woman. The University expresses these principles especially by passing on the heritage of St. Vincent de Paul: individual perfection manifested through purposeful involvement with other persons, communities and institutions.

The College of Liberal Arts and Sciences assumes as its direct educational task to foster in its students those traditions of scholarliness central to advanced studies and research. The programs for the master's and doctoral degrees are designed to develop in graduate students a broad and deep knowledge of their chosen discipline, the research methodology of the discipline and the development of those competencies necessary for their personal advancement in their scholarly, professional or creative careers.

Through the steady flow of its graduates into the community, the College strives to assist contemporary society to meet its need for educated individuals willing to be of service to others.

Richard J. Meister, Ph.D., Dean
MASTER'S PROGRAMS

For the master's degree, all programs involve one or more of the following: 1) Credit Hours, 2) Thesis, 3) Paper on Approved Topic, 4) Integrating Project, 5) Final or Comprehensive Examination, and 6) Program Time Limitation.

Credit Hours. For the master's degree, most programs for graduate students require forty-eight quarter hours of course work. When the program includes a thesis, no more than eight quarter hours of registration in Thesis Research will be counted toward the degree. Specific degree requirements are listed in the departmental and program sections of this Bulletin.

Thesis. The University offers the master's degree both with and without the thesis; however, the thesis is required by some departments. The thesis is limited to the student's field of specialization and should offer satisfactory evidence of the candidate's potential for scholarly research.

The student is advised to consult the College Office for information regarding the required form and type of paper to be used for the thesis. Responsibility for fulfilling these requirements lies with the student, not the typist.

The student, after completing the thesis, will submit it to the director of his or her Thesis Committee for consideration. Whatever changes or additions are necessary must be made by the final date of acceptance, or the student will not be permitted to graduate until a subsequent convocation. When the thesis is accepted, the student must file the designated number of typewritten copies in the College Office. The date for filing is published in the current Bulletin and the class schedule or may be obtained directly from the College Office. The responsibility for meeting this deadline lies with the student.

Paper on Approved Topic. The type and length of the paper is determined by the department or program that lists it as a requirement for the master's degree. The purpose of the paper is to give evidence of the student's ability to find, select, organize and interpret material in a manner consistent with the standards and practices of the discipline involved.

The student's choice of a paper topic is to be approved by his or her department or program. The paper is to follow the form approved for a thesis, and must be submitted within two months after the approval of the topic. Only one copy of the paper need be presented to the student's major department or program advisor.

Integrating Project. Procedures for such a project are set in advance in each specific case through consultation between the student and the department or program advisor.

Final or Comprehensive Examination. The type and the subject matter of the examination follow the regulations established in the various departments and programs. If the student does not pass the examination, the department or program may grant permission for another examination. The examination may not be repeated until after the next convocation nor may the examination be taken more than twice.

Program Time Limitation. Graduate students in master's programs are expected to complete their program degree requirements within a six-year period from the first registration date for a course in the program. When a graduate student fails to finish before the end of the sixth year, the department or program director may recommend, on receipt of the student's petition, in writing, to the Dean, an extension of time with or without additional courses, examinations, or other conditions.
DOCTORAL PROGRAMS

The Doctor of Philosophy, the highest academic degree that DePaul University confers, is offered in the departments of Computer Science, Philosophy, and Psychology. The degree shows that the recipient has demonstrated proficiency in a broad area of learning, as well as the potential to explore and advance that field of knowledge by independent research.

Following are the minimum general requirements for all candidates for the Doctor of Philosophy degree in the areas of 1) Credit Hours, 2) Academic Achievement, 3) Residence, 4) Admission to Candidacy, 5) Dissertation, 6) Final Examination and 7) Program Time Limitations. Additional requirements set by the departments are stated in the departmental sections of this Bulletin.

Credit Hours. For the doctoral degree the graduate student will complete a minimum of 108 quarter hours of post-baccalaureate credit of which a maximum of 36 quarter hours of credit is applicable to the dissertation. At the department's discretion, a student holding a Master's degree from an accredited institution may be accorded advanced standing. In such cases, the department will specify remaining program requirements, which must involve no less than 60 quarter hours of credit.

Academic Achievement. A student will be advised to withdraw from the doctoral program when the department judges that he or she is not maintaining satisfactory progress toward the degree. Students are required to maintain at least a 3.0 average. A course grade below 2.0 is unsatisfactory and will not be counted toward completing degree requirements. The determination of satisfactory progress is not limited to grades and grade point average, but includes all factors in the student's performance.

Residence. At least three consecutive quarters beyond the master's level must be spent in full-time study at DePaul University. Full-time study is defined as registration for a minimum of eight quarter hours in a quarter. With prior approval of the department, the student may satisfy residency by course work, by participation in seminars, or by research performed off campus.

To reflect the diversity of graduate study for the Ph.D. degree at stages other than the residency stage, doctoral candidates are full-time students who are registered for Reading and Research (four quarter hours); for Thesis Research (four quarter hours); or for Candidacy Continuation (zero hours credit).

Admission to Candidacy. Admission to candidacy implies that the faculty is satisfied the doctoral candidate is sufficiently knowledgeable in his or her area of specialization and in the use of research tools to be able to prepare an acceptable dissertation.

For Admission to Candidacy the doctoral candidate shall complete three consecutive quarters of full-time study beyond the master's level. Other requirements may include a comprehensive examination, departmental language or allied field study, and/or a dissertation proposal.

The College Office will issue to each doctoral candidate a letter to authenticate admission to candidacy. Admission to Candidacy will be entered on the doctoral candidate's scholastic record.

There is a time limit of four years between admission to the College of Liberal Arts and Sciences and admission to candidacy. Once admitted to candidacy, the doctoral candidate must maintain registration in the University in each of the quarters of the academic year until the degree requirements have been completed. Among other courses, the following are appropriate to maintain registration: Independent Study (four quarter hours); Residency Candidacy Continuation (non-credit); or Non-Resident Candidacy Continuation (non-credit). Failure to comply with the policy governing registration in the University, in each of the quarters of the academic year, until the degree requirements have been completed may result in dismissal from the doctorate program. Candidacy status may be reinstated only after the student has applied for readmission (see Readmission Procedures).
Dissertation. The doctoral candidate will prepare a dissertation based on his or her research. The purpose of the dissertation is to evidence both one's scholarship and ability to carry on such independent research as definitely contributes to the advancement of knowledge. The topic of the dissertation should be submitted to the head of the department of specialization who will appoint a Dissertation Committee to approve the topic and to assist the doctoral candidate through all stages in the preparation of the dissertation. The chairperson of this committee is the dissertation director.

All doctoral dissertations are to be microfilmed. After all requirements have been completed, the doctoral candidate submits to the College Office the designated number of typewritten, unbound, final copies of the dissertation. (The first copy is to be in satisfactory condition for microfilming.) The candidate also prepares and submits a 350-word abstract of the dissertation. The abstract will be published in Dissertation Abstracts and will include an announcement that the dissertation is available in film form. One microfilm copy will be deposited in the University Library and will be available for inter-library loan.

To defray the costs of microfilming and publication, a fee of $45.00 is assessed. Microfilming is considered by the University to be a form of publication. Publication by microfilm, however, does not preclude the printing of the dissertation in whole or in part in a journal or monograph.

Final Examination. The dissertation is the principal basis of the Final Examination. After completing the dissertation, and at least eight months after admission to candidacy, candidates should submit a petition for the Final Examination to their department. The department chairperson notifies the Graduate Dean of the date, time, and place of the examination and of the names of the members of the examining committee. After the examination, the chairperson of the committee sends a report of the results, signed by all committee members, to the Graduate Office.

When these steps have been completed, the doctoral candidate becomes eligible for degree conferment at the next convocation.

Program Time Limitations. For graduate students in a doctoral program, the time limits to complete the requirements for the Doctor of Philosophy degree are 1) between admission to the doctoral program and admission to candidacy: not more than four years; and 2) between admission to candidacy and the final examination: not less than eight months, and not more than five years.

Admission Classifications

Applicants are admitted to the College of Liberal Arts and Sciences on the basis of their ability to complete programs of study and research prescribed for the master's and doctoral degrees. Specifically, admission qualifications are measured by academic criteria.

In accord with these criteria, applicants are admitted in one of three major categories: degree seeking, non-degree seeking, and student-at-large.

DEGREE-SEEKING STUDENTS

Applicants are admitted as degree-seeking students in either of two ways: full or conditional.
Full Degree-Seeking Status

The minimum requirements for this status are:
Bachelor's degree conferred by a regionally accredited institution,
Scholastic achievement in undergraduate studies satisfying all requirements for entering a specific graduate program,
Unconditional approval by the department or program director of the applicant's proposed course of graduate study, and
Submission to the LA & S Graduate Office of all required supporting credentials.

Please note these are minimum requirements for full admission. The departmental and program sections of this Bulletin provide additional, more specific and selective, criteria for admission to specific programs.

Conditional Degree-Seeking Status

The minimum requirements for this status are:
Bachelor's degree conferred by a regionally accredited institution,
Scholastic achievement in undergraduate studies indicating a capacity to pursue successfully a specific program of graduate study,
Conditional approval by the department or program director of the applicant's proposed course of graduate study, and
Submission to the LA&S Office of all required supporting credentials.

A conditionally admitted applicant is eligible for re-classification to full, degree-seeking status when the conditions of his or her admission have been satisfied.

NON-DEGREE SEEKING STUDENTS

The Dean, at his discretion, may admit as students those applicants who do not wish to pursue an advanced degree. Non-degree seeking students may, at some future date, make application for re-classification to degree-seeking status.

Non-Degree Seeking Status

The minimum requirements for this status are:
Bachelor's degree conferred by a regionally accredited institution,
Scholastic achievement in undergraduate studies indicating a capacity to pursue successfully graduate course work,
Approval by the Dean, and
Submission to the LA&S Office of all required supporting credentials, including a letter of intent addressed to the Dean.

When such students file for re-classification, the departmental or program director of their specific graduate course of studies may recommend, in writing, to the Dean that a maximum of three courses (12 quarter hours) completed by the student under the non-degree seeking status be counted toward fulfillment of the advanced degree requirements.

STUDENT-AT-LARGE

The College of Liberal Arts and Sciences may admit as a student-at-large a graduate student currently enrolled in a graduate program in another accredited institution upon the recommendation, in writing, of his or her own Graduate Dean.
A student-at-large must complete the form for admission to the College Office. The only supporting credential required is a letter from the Dean of the Graduate School where the student is in good standing. This letter should state in general terms the course or courses the student is authorized to take.

Under no circumstances does this classification constitute admission to a degree program at DePaul University.

DEPAUL SENIORS

Seniors in any of the undergraduate colleges or schools of DePaul University are eligible to apply for admission to the College of Liberal Arts and Sciences while completing their undergraduate program.

Admission Procedures

GENERAL PROCEDURES

Procedures for admission to the College of Liberal Arts and Sciences involve a completed application form, supporting credentials, admission fee, deadlines, and the Dean's admission letter.

Application Form: You can obtain a graduate application form either by mailing your request to the LAS Graduate Office, DePaul University, 2323 North Seminary, Chicago, Illinois, 60614 or by calling (312) 362-5367. Please include your proposed field of study in your request because the composition of the “application packet” varies from department to department and from program to program.

Note: An undergraduate DePaul senior is eligible to submit an application to the LAS Graduate Program before completing his or her undergraduate program.

Supporting Credentials: OFFICIAL TRANSCRIPTS, IN DUPLICATE, of your academic records at ALL universities, colleges, and junior colleges attended are required. Please direct the registrar(s) to mail these official transcripts directly to the LAS Graduate Office, DePaul University. Since there is frequently a delay in the forwarding of transcripts, you are advised to make your request as early as possible.

Note: Several departments and divisional programs require additional supporting credentials. Please consult the specific departments or divisional program directors listed in this Bulletin to determine what additional materials are required for admission to the specific course of graduate study, and to determine deadlines for the completion of all application materials.

An undergraduate DePaul senior, making application, should request the Registrar to forward two official transcripts to the LAS Graduate Office, a written recommendation for admission from the appropriate chairperson or program director, and written certification by the appropriate Undergraduate Dean of the senior's completed and uncompleted requirements for the bachelor's degree.

Admission Fee: A check or money order payable to DePaul University in the amount of $20.00 must accompany the completed application form. Any application form received in the LAS Office without the fee will be returned unprocessed. The fee is non-refundable.
**Dean's Admission Letter:** The Dean will notify you by letter of your admission status. It is the policy not to review, evaluate or act upon any application for admission without having the completed application form, all the supporting credentials, and the application fee.

*If you do not enroll at the University within one year of the date of your letter of admission, you must complete an application for Readmission.*

**Graduate Credit Transfer**

Credit transfer in degree programs leading to the master's or doctoral degree ordinarily is not allowed. However, the Dean may authorize an exception to this policy when, in the judgment of the Dean and the department chairperson or program director, the circumstances justify the exception.

**INTERNATIONAL STUDENT ADMISSION**

Applicants educated outside of the United States must obtain, in addition to the standard application, the Educational History Form and Information Sheet by writing to the Graduate Admission Office. Candidates must meet academic requirements and demonstrate English proficiency with a TOEFL score of 550 or greater. Those requesting Student Visas (I-20) must demonstrate adequate financial support. The letter of admission and the visa form I-20 are issued only after admission.

Application deadlines for international students are:

<table>
<thead>
<tr>
<th>Initial Enrollment</th>
<th>Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autumn Quarter</td>
<td>June 4</td>
</tr>
<tr>
<td>Winter Quarter</td>
<td>October 1</td>
</tr>
<tr>
<td>Spring Quarter</td>
<td>January 2</td>
</tr>
<tr>
<td>Summer Quarter</td>
<td>March 4</td>
</tr>
</tbody>
</table>

As an international student, you are strongly urged to make application as early as possible. Usually there are long delays in the forwarding of all supporting credentials.

**READMISSION PROCEDURES**

If you were previously enrolled in a graduate program in the College of Liberal Arts and Sciences but have not been in attendance for a period of one calendar year or longer, but not more than four calendar years, you must file a readmission form with the LA&S Office. (If more than four years have elapsed since you have been in attendance, you must file a new application.) The form must be submitted at least two weeks prior to the day of registration for the term in which you expect to resume your studies. There is a $5.00 service fee for processing a readmission form.

TWO official copies of any transcript recording scholastic work taken while not enrolled at DePaul University must be submitted. As a general rule, students are held to the degree requirements that are in force at the time of readmission.

**RE-CLASSIFICATION PROCEDURES**

Should you desire a change in your major or admission status, you must file a "Request for Re-classification" form with the LA&S Office.
Biological Sciences

FACULTY

Sidney L. Beck, Ph.D., Professor and Chair ............................................. Brown University
Stanley A. Cohn, Ph.D., Assistant Professor .......................................... University of Colorado
John R. Cortelyou, C.M., Ph.D., Professor ............................................... Northwestern University
John V. Dean, Ph.D., Assistant Professor ................................................. University of Illinois
Lester Fischer, D.V.M., Adjunct Associate Professor (Lincoln Park Zoo) .... University of Illinois
Robert A. Griesbach, Ph.D., Professor Emeritus ...................................... University of Chicago
Danute S. Juras, Ph.D., Associate Professor ........................................... Marquette University
Leigh A. Maginniss, Ph.D., Associate Professor ........................................ University of Hawaii
Richard M. McCourt, Ph.D., Assistant Professor ...................................... University of Arizona
Dolores J. McWhinnie, Ph.D., Associate Professor ..................................... Marquette University
Dennis A. Meritt, Adjunct Associate Professor (Lincoln Park Zoo) .......... University of Illinois at Chicago
Mary A. Murray, Ph.D., Associate Professor Emeritus ............................ University of Chicago
Robert L. Novak, Ph.D., Associate Professor (Joint appointment with Chemistry) .................................................. University of Delaware
Daniel G. Oldfield, Ph.D., Associate Professor Emeritus ........................ University of Chicago
Margaret E. Silliker, Ph.D., Assistant Professor ......................................... University of California, Berkeley
Robert C. Thommes, Ph.D., Professor Emeritus ........................................ Northwestern University
James E. Woods, Ph.D., Professor Emeritus .............................................. Stritch School of Medicine, Loyola University

PURPOSES

The Department offers a program of advanced study which will enable qualified students to earn a degree at the master's level.

More specifically the Department provides:

• assistance in planning a specific program or sub-concentration of studies which will help the student to achieve his or her career goal,

• a series of lecture, laboratory, and seminar courses appropriate to the degree program offered, and a continuing series of seminars by renowned scientists from other institutions,

• opportunities for research leading to the thesis in accord with the student's and the faculty's research interests, and

• continuing opportunities for interaction between faculty and students in order to promote the existence of a scholarly and collegial environment.

The learning objectives of the Department are:

• improved understanding of biology to the extent expected at the master's level,

• improvement in ability to synthesize, interpret and conceptualize biological information consistent with achievement of the master's degree,

• development of laboratory skills and methodologies which enable the student to acquire, independently, new knowledge relating to life and the principles governing living systems,

• achievement of the ability to communicate biological knowledge effectively to others in both an oral and a written fashion, and
• achievement of the habit of objective observations and evaluation as well as attitudinal values, in keeping with the expectations of Science and the community of professional biologists.

PROGRAMS

**Master of Science: Biological Sciences**

A program of study leading to the Master of Science degree in Biology is designed for students who

• have a strong desire to increase their understanding of the life sciences,
• plan additional education at the master's level for increased proficiency in teaching and/or research, or
• plan to continue study toward the Ph.D. degree.

The master's program provides lecture, laboratory and seminar courses—along with learning experiences in research and undergraduate laboratory assisting, to aid students in achieving their stated goals. Students develop a particular concentration of studies in consultation with their academic advisor.

**MASTER OF SCIENCE: BIOLOGICAL SCIENCES**

**Admission Requirements**

For full admission, students will generally have the following:

Bachelor's degree: major in biological sciences or its equivalent.

Chemistry: minimum two academic years, including one year of organic.

General Physics: one year.

Calculus: one course.

Prerequisite course work completed by the end of the first year of graduate study.

Transcript of credits.

Graduate Record Examination Scores.

Three letters of recommendation from science professors, preferably biology.

Grade point average of at least 2.7 on a scale of 4.

**Degree Requirements**

Courses: 56 quarter hours of graduate credit, including graduate core courses, BIO 400 Development of Topics for research, BIO 495 Introduction to Graduate Study, and up to 12 hours of Research, of which at least eight hours must be BIO 498 Research for Master's Thesis. Graduate students are also required to attend all of the seminars presented in the Department's Seminar Series and to enroll in Bio 500 Seminar and/or Bio 501 Seminar Continuation. Note: Students are expected to have at least one course in each of the six core areas of study.

**Core Areas of Study**

- Immunology and Microbiology (BIO 425, BIO 471)
- Cell and Molecular Biology (BIO 425, BIO 450, BIO 460, BIO 461)
- Population Biology/Ecology (BIO 416, BIO 417)
- Physiology and Neurobiology (BIO 409, BIO 446, BIO 452)
BIO

Endocrinology and Mineral Metabolism (BIO 410, BIO 486)
Development and Genetics (BIO 460, BIO 468)

Advancement to Candidacy: based upon the results of a qualifying examination between the
departmental faculty and the student taken near the end of the third quarter of the stu-
dent's first full year.

Participation in undergraduate laboratory instruction and/or research assisting: minimum of
three courses and/or two quarters.

Thesis: results based upon an independent laboratory investigation.
Final examination: An oral examination, including presentation of a seminar based on the
M.S. thesis research, and a period of questioning on the thesis, the area of research
which the thesis addresses, and basic biology as it relates to the thesis area.

CERTIFICATION FOR HIGH SCHOOL (6-12) TEACHING

DePaul University School of Education offers approved programs for State of Illinois cer-
tification in 6-12 teaching. Students who complete the requirements for the Master of Science
in Biological Sciences listed above may also obtain certification by satisfying the following
additional requirements:

1. Courses:
   School of Education: CUG 400, 403, 408, R&E 446, CDG 405, 525, 590 (student teach-
ing), and SE 339.

2. Other requirements:
   a. Specific courses in general education (such as science or U.S. history) if not taken
      as an undergraduate.
   b. Basic skills and subject matter tests.
   c. Field experiences.

Students in this program must apply to and have an advisor in the School of Education.

Courses

All courses are offered in Michael J. O'Connell Center, Lincoln Park Campus (1036 W. Bel-
den Avenue).

GRADUATE COURSES

400 Development of Topics for Research. To help graduate students develop skills
necessary to formulate research questions and design methods for their implemen-
tation. Students will, with the guidance of a faculty member, undertake a detailed
investigation of a topic, formulate a potential research project in that area, and
present their proposal orally to the faculty at the end of the quarter (2).
Independent Study. Experimental and/or Library study of selected topics in the life sciences. A-Cell Biology, B-Immunobiology, C-Developmental Biology, D-Physiology, E-Endocrinology, F-Genetics, G-Structural Biology, H-Ecology. Offered in the Autumn, Winter, Spring and Summer quarters (2 or 4). Laboratory Fee $15.00 per credit hour.

Biometry. The design and analysis of experiments in the Biological Sciences, and presentation by the student of analyses of published and/or unpublished data. Laboratory will consist of computer assisted data reduction (4). Laboratory Fee $25.00.


Advanced Endocrinology. Analysis of the hormonal regulation of the structure, function and biochemistry of hard tissues, and of calcium metabolism. Lecture-Seminar (4). (Prerequisite: Biology 386 or 486, or equivalent)

Phycology. Introduction to algae with emphasis on freshwater forms: taxonomy, morphology, ultrastructure, physiology, life histories. Lecture Laboratory (4). Laboratory Fee $25.00.

Aquatic Biology. The study of physical, chemical and biological phenomena in freshwater environments. Lecture-Laboratory (4). Laboratory Fee $25.00.


Neurobiology. Introduction to the structure and function of vertebrate and invertebrate nervous systems. Lecture (4).

Problems in Cell Biology. Analysis of basic contemporary problems in cellular morphology and physiology, with emphasis on the regulation of cellular processes involving interactions of organelles. Seminar (4).

Advanced Comparative Physiology. Comparative and environmental approach to the function and regulation of vertebrate organ systems. Selected topics in comparative physiology will be addressed using a lecture/discussion/seminar format (4).

Molecular Biology. Study of biology at the molecular level, focusing on the regulation of gene expression and the principles of genetic engineering. Lecture-Laboratory (4). Laboratory Fee $25.00.

Topics in Molecular Biology. Discussion and seminars in selected areas.

Developmental Toxicology. The toxic effects of exogenous chemicals, especially on the developing mammalian organism including the human. Laboratory project in experimental teratology. Lecture-Laboratory (4). Laboratory Fee $25.00.

Immunobiology. Basic factors governing immune phenomena and antigen antibody reactions. Lecture-Laboratory (4). Laboratory Fee $25.00.

Introduction to Endocrinology. Study of hormonal regulation in animals. Lecture.

Special Topics. Occasional courses offered at the graduate level. See schedule for current offerings. (2 or 4) (Prerequisite: Graduate Standing)

Introduction to Graduate Study. A presentation of the faculty and facilities. Experience with various research and teaching laboratory methods in Biology. Consideration of such topics as laboratory safety, handling of radioactive chemicals, instrument and equipment use, living organisms, library and computer use, etc. Required of all graduate students. (2) Autumn quarter only.
Research

Research. Experimental work in selected areas of biology. These studies do not necessarily relate to a thesis or dissertation. Autumn, Winter, Spring, Summer. Laboratory (2,4) Laboratory Fee $15.00 per credit hour. (Prerequisite: Approval of the Department.)

Research for Master's Thesis. Original study of a specific biological problem leading to a thesis. Autumn, Winter, Spring, Summer. Laboratory (2,4). Laboratory Fee $15.00 per credit hour. (Prerequisite: Approval of the Department.)

Seminar. Presentation, throughout the academic year, of their research by practicing scientists from a variety of institutions. Required of first year graduate students. (0)

Seminar Continuation. Presentation, throughout the academic year, of their research by practicing scientists from a variety of institutions. Required of second year graduate students. (0)

Candidacy Continuation. Required of all students who are not registered for regular courses but who occasionally utilize University facilities during completion of course requirements and/or research. Non-credit. $40.00 per quarter.
Chemistry

FACULTY

Sara Steck Melford, Ph.D., Associate Professor and Chair ............... Northwestern University
Jurgis A. Anyšas, Ph.D., Associate Professor .......................... Illinois Institute of Technology
Avrom A. Blumberg, Ph.D., Professor ................................. Yale University
Fred W. Breitbeil, III, Ph.D., Professor ............................... University of Cincinnati
Sanat K. Dhar, Ph.D., Professor ................................. Wayne State University
Edwin F. Meyer, Ph.D., Professor .................................. Northwestern University
Thomas J. Murphy, Ph.D., Professor .............................. Iowa State University
Robert L. Novak, Ph.D., Associate Professor (Joint Appointment
with Biological Sciences) ....................................... University of Delaware
William R. Pasterczyk.
Ph.D., Professor Emeritus .................................... Loyola University, Stritch School of Medicine
Franklin S. Prout, Ph.D., Professor Emeritus ....................... Vanderbilt University

PURPOSES

The degree of Master of Science in Chemistry is designed to prepare students for advanced work in the profession of Chemistry or Biochemistry and for further graduate study.

PROGRAMS

Master of Science: Chemistry

Admission Requirements

For full admission, students must have the following:
Bachelor's degree: Chemistry or equivalent.
Calculus: one year.
Physics, with laboratory: one year.
General Chemistry: one year.
Quantitative Analysis: one year, including one course in instrumental analysis.
Organic Chemistry: one year, including spectral analysis.
Inorganic Chemistry: one upper-level course.
Physical Chemistry: one year.

Degree Requirements

Chemistry: Thesis

Courses: a minimum of 44 quarter hours, including:

CHE 422, 424 Advanced Inorganic Chemistry I, II
CHE 430 or 432 or 434 Polymer Synthesis or Physical Chemistry of Polymers or Polymer Characterization
CHE 450, 452 Advanced Organic Chemistry I, II
CHE 470, 472 Advanced Physical Chemistry I, II
CHE 490 Statistical Analysis of Data

Twelve quarter hours of research credit.
Satisfactory thesis.
CHE

Oral examination: in two parts. The first part is the thesis presentation and defense; the second part, an oral examination concerning the candidate's general knowledge of chemistry.

Chemistry: Non-Thesis

Courses: a minimum of 44 quarter hours, including:
- CHE 422, 424 Advanced Inorganic Chemistry I, II
- CHE 430, 432 or 434 Polymer Synthesis or Physical Chemistry of Polymers or Polymer Characterization.
- CHE 450, 452 Advanced Organic Chemistry I, II
- CHE 470, 472 Advanced Physical Chemistry I, II
- CHE 480 Special Topics in Analytical Chemistry
- CHE 490 Statistical Analysis of Data

Two elective courses.

Biochemistry: Thesis

Courses: a minimum of 44 quarter hours, including:
- CHE 340, 342, 440 Biochemistry I, II, III
- CHE 341 Experimental Biochemistry I

One set of two courses from:
- CHE 422, 424 Advanced Inorganic Chemistry I, II
- CHE 450, 452 Advanced Organic Chemistry I, II
- CHE 470, 472 Advanced Physical Chemistry I, II

Two elective courses (eight quarter hours). Fourteen quarter hours of research credit. Satisfactory thesis

Oral examination: in two parts. The first part is the thesis presentation and defense; the second part, an oral examination concerning the candidate's general knowledge of chemistry.

Coatings Technology: Nonthesis

This program, which has been set up with the cooperation of the Chicago Society for Coatings Technology, is designed to provide students with the skills necessary for work in research and development in the coatings field. Since coatings systems are complex combinations of polymers, pigments and other chemicals, the course of study involves most branches of chemistry including organic, polymer, physical, inorganic, and analytical chemistry. Courses: a minimum of 44 quarter hours, including any five from this set of six (substitutions, with other 300 or 400 level chemistry courses, may be made with permission of chair):

- CHE 422, 424 Advanced inorganic Chemistry I, II
- CHE 450, 452 Advanced Organic Chemistry I, II
- CHE 470, 472 Advanced Physical Chemistry I, II

and all of the following:
- CHE 430 Polymer Synthesis
- CHE 432 Physical Chemistry of Polymers
- CHE 434 Polymer Characterization
- CHE 460 Coatings Technology I
- CHE 461 Coating Technology Laboratory I
- CHE 462 Coatings Technology II
- CHE 463 Coatings Technology Laboratory II.
Chemistry as a Minor Field

Six quarters of chemistry and three quarters each of physics and calculus must be completed before a minor sequence can be started. The 200-level courses listed below can be used for graduate credit only by chemistry minors.

210 Physical Chemistry I. (Prerequisite: CHE 113) Offered: Autumn.
211 Physical Chemistry II. (Prerequisite: CHE 210) Offered: Winter.
215 Physical Chemistry III. (Prerequisite: CHE 211) Offered: Spring.
261 Instrumental Analysis. (Prerequisite: CHE 215) Offered: Winter.
265 Air Chemistry. (Prerequisite: CHE 127 or 147) Offered: Spring of even-numbered years.
267 Water Chemistry. (Prerequisite: CHE 127 or 147) Offered: Autumn quarter of even-numbered years.
269 Industrial Chemical Hazards. (Prerequisite: CHE 127 or 147 and CHE 125 or 175) Offered: Spring of odd-numbered years.

Courses

All of the following courses are held in the Michael J. O'Connell Center, 1036 West Belden Avenue or the Arthur J. Schmitt Academic Center on the LincoIn Park Campus. Courses with laboratory are odd numbered. All courses carry four quarter hours of credit unless otherwise noted.

ADVANCED UNDERGRADUATE COURSES:

312 Quantum Chemistry. (Prerequisite: CHE 211.) Offered: Spring.
321 Intermediate Inorganic Chemistry. (Prerequisite: CHE 125 or 175; 210 or consent; and 312 strongly recommended.) Offered: Autumn.
325 Solid Waste Chemistry. (Prerequisite: CHE 210.) Offered: Spring of odd-numbered years.
340 Biochemistry I. (Prerequisite: CHE 125 or 175.) Offered: Autumn.
341 Experimental Biochemistry I. (Corequisite: CHE 340.) Offered: Autumn of odd-numbered years (2).
342 Biochemistry II. (Prerequisite: CHE 340.) Offered: Winter of even-numbered years.
343 Experimental Biochemistry II. (Prerequisite: CHE 341; 261 or consent.) Offered: By Arrangement (2).
356 Spectral Interpretation. (Prerequisite: CHE 125 or 175; 261 or consent.) Offered: Spring.
374 Selected Topics in Physical Chemistry. (Prerequisite: Permission of instructor.) Offered by arrangement. This course may be repeated for credit if topic is different (2). This course may be any topic in the field of polymers, transport phenomena, etc.
385 **Advanced Chemical Techniques.** (Prerequisite: Permission of Chairman.) This is a laboratory course which may be in the fields of analytical, biochemistry, inorganic, organic, physical, or polymer chemistry. This course may be repeated for credit if topic is different. (2) Offered: By arrangement.

399 **Independent Study.**

**GRADUATE COURSES**

422 **Advanced Inorganic Chemistry I.** (Prerequisites: CHE 312 and 321 or consent of instructor.) Offered: Winter of even-numbered years.

424 **Advanced Inorganic Chemistry II.** (Prerequisite: CHE 422.) Offered: Spring of even-numbered years.

426 **Bioinorganic Chemistry.** (Prerequisite: CHE 422.) Offered: By arrangement.

430 **Polymer Synthesis.** (Prerequisite: CHE 175 or 125 or equivalent.) Offered: Spring 1994, 1996, 1998.

432 **Physical Chemistry of Polymers.** (Prerequisite: CHE 215 or equivalent.) Offered: Spring 1993, 1995, 1997.

434 **Polymer Characterization.** (Prerequisite: CHE 215 or equivalent.) Offered: Autumn 1992, 1994, 1996.

440 **Biochemistry III.** (Prerequisite: CHE 342.) Offered: Spring of even-numbered years.

450 **Advanced Organic Chemistry I.** (Prerequisites: CHE 175 and 210.) Offered: Autumn.

452 **Advanced Organic Chemistry II.** (Prerequisite: CHE 450.) Offered: Winter.

460 **Coatings Technology I.** (Prerequisite: CHE 175 or 125 and 215 or equivalent.) Offered: Spring 1993, 1995.

461 **Coatings Technology Laboratory I.** (Prerequisite: CHE 175 or 125, and 215, or equivalents.) Offered: Every year (2 quarter hours).

462 **Coatings Technology II.** (Prerequisite: CHE 175 or 125; 215 or equivalent; and CHE 430, or permission of instructor.) Offered: Fall 1993, 1995.

463 **Coatings Technology Laboratory II.** (Prerequisite: CHE 175 or 125 and 215 or equivalent.) Offered: Every year (2 quarter hours).

470 **Advanced Physical Chemistry I. Thermodynamics.** (Prerequisite: CHE 215.) Offered: Autumn of even-numbered years.

472 **Advanced Physical Chemistry II.** Kinetics. (Prerequisite: CHE 215.) Offered: Winter of odd-numbered years.

478 **Advanced Topic in Physical Chemistry.** (Prerequisite: Permission of Chairman.) By arrangement. This course may be repeated for credit if the topic is different.

480 **Special Topic in Analytical Chemistry.** (Prerequisite: CHE 261.) This course may be any topic related to chemical analysis, such as mass spectroscopy, electrochemical analysis, principles of chromatography, polymer properties, coatings, sampling methods, design of experiments, etc. This course may be repeated if the topics are different. By arrangement.

490 **Statistical Analysis of Data.** (Prerequisite: ability to program in BASIC.) Offered: Spring of odd-numbered years.
497 Research. (Prerequisite: Permission of Advisor.) Students doing laboratory research must register for this course. This course may be repeated for credit. Offered every quarter, variable credit (1-4 quarter hours).

500 Independent Study. Variable credit. (Prerequisite: Permission of Chairman.) Offered by arrangement. This course may be repeated for credit.

502 Candidacy Continuation. Required of all students who are not registered for regular courses but who occasionally utilize University facilities during completion of course requirements and/or research. Non-credit. $40.00 per quarter.
FACULTY

Helmut Epp, Ph.D., Associate Professor and Chair ........................................ Northwestern University
L. Edward Allemand, Ph.D., Professor ......................................................... University of Louvain
Gary Andrus, Ph.D., Associate Professor .................................................... Wayne State University
Sally Banasz, J.D., Lecturer ........................................................................... John Marshall College of Law
Ronald Benjamin, M.S., Adjunct Associate Professor ................................. DePaul University
Gregory Brewster, M.S., Instructor .............................................................. University of Wisconsin
Susy S. Chan, Ph.D., Associate Professor .................................................... Syracuse University
Hon-Wing Cheng, M.S., Instructor ................................................................. Chinese University of Hong Kong
David Chodorowski, B.S., Lecturer .............................................................. Elmhurst College
I-Ping Chu, Ph.D., Associate Professor ....................................................... S.U.N.Y. at Stony Brook
Anthony Chung, Ph.D., Assistant Professor ................................................. University of Maryland
Nick Dekelaita, M.S., Lecturer ..................................................................... DePaul University
Joseph Donovan, B.B.A., Lecturer ............................................................... Bernard Baruch College
Lawrence Dribin, Ph.D., Lecturer ................................................................. Illinois Institute of Technology
Br. Michael Driscoll, M.S., Instructor ............................................................ Notre Dame University
Clark Elliott, M.S., Instructor ..................................................................... DePaul University
Richard Ezop, M.B.A., Lecturer ................................................................. University of Chicago
Robert James Fisher, Ph.D., Associate Professor ......................................... Harvard University
Robert Galka, B.S., Lecturer ....................................................................... DePaul University
Gerald Gordon, Ph.D., Associate Professor ................................................. University of California, Berkeley
Daniel Gorski, B.B.A., Lecturer ................................................................. University of Wisconsin
Henry Harr, Ph.D., Associate Professor ....................................................... Illinois Institute of Technology
James Heathery, M.B.A., Lecturer ............................................................... DePaul University
James Janossey, M.S., Instructor ................................................................. California State University
Xiaoping Jia, Ph.D., Assistant Professor ....................................................... Northwestern University
Prasana Log, Ph.D., Assistant Professor ....................................................... Indiana University
Richard Johnsonbaugh, Ph.D., Professor ..................................................... University of Oregon
Steve Jost, Ph.D., Assistant Professor ........................................................ Northwestern University
Martin Kalin, Ph.D., Associate Professor ................................................... Northwestern University
George Knafl, Ph.D., Professor .................................................................. Northwestern University
Warren Krueger, Ph.D., Associate Professor ............................................. University of Wisconsin
Glenn Lancaster, Ph.D., Associate Professor ............................................. University of California, Irvine
Chengwen Liu, Ph.D., Assistant Professor ............................................... University of Illinois, Chicago
Kam-Chan Lo, Ph.D., Lecturer ................................................................. University of Nice
Peter Logothetis, M.B.A., Lecturer ............................................................... DePaul University
David Miller, Ph.D., Associate Professor .................................................. University of Chicago
Thomas J. Muscarello, M.S., Instructor ....................................................... DePaul University
Rosalee Nerheim, Ph.D., Assistant Professor ............................................. Indiana University
Richard Orth, M.S., Lecturer ................................................................... DePaul University
Edward Pudlo, M.S., Instructor ................................................................. DePaul University
Stephen Samuels, M.A., Lecturer ............................................................... DePaul University
Thomas Sheridan, M.S., Lecturer ............................................................... University of Pittsburg
Kirk Snyder, Ph.D., Assistant Professor ..................................................... New York University
Charlie Wilcox, B.A., Lecturer ................................................................. Southern Illinois University
Jacek Witaszek, Ph.D., Assistant Professor ................................................ Warsaw University
PURPOSES

The Department of Computer Science and Information Systems offers graduate level, professional education in these areas: artificial intelligence, computer science, visual computing, data communications, telecommunication systems, data analysis, information systems, software engineering, and management information systems. Students choose from a broad collection of courses to develop, in depth, the research habits and practical skills needed for research and professional practice. The department's programs are designed to provide its graduates with the technical competence and the flexibility necessary to respond to both present and future opportunities in the computing professions.

PROGRAMS

The department offers graduate work leading to the Master of Science and Doctor of Philosophy degrees as well as non-degree programs in Professional Development. The M.S. is a terminal degree. A Masters degree in computer science or a related field is required for consideration for the Doctor of Philosophy degree. The curricula cover theoretical foundations, state-of-the-art techniques and skills, and major trends. The department offers programs in the following areas:

Professional Development:

The non-degree programs in professional development offer intensive training in several areas for computing professionals. For more information on these certificate programs, students should contact the Institute for Professional Development at (312)362-6282.

Master of Science:

Computer Science
Information Systems
Telecommunication Systems
Management Information Systems

Doctor of Philosophy: Computer Science

MASTER OF SCIENCE: COMPUTER SCIENCE

The masters degree program consists of three phases:

• Prerequisite Phase
• Core Knowledge Phase
• Advanced Phase

The Prerequisite Phase guarantees that all students have a common background. Successful completion of the Prerequisite Phase constitutes part of the admission requirements for the Masters degree program.

The Core Knowledge and Advanced Phase constitute the degree program. The Core Knowledge Phase prepares students for their chosen concentration. In the Advanced Phase, students specialize in their concentration area. The concentration requirements are tailored to meet individual students needs. The student must pass an examination to move from one phase to another.
Admission Requirements

All applicants who satisfy general graduate college admission requirements initially receive conditional admittance and may then pursue a degree program. For full admission to a degree program, students must have the following:

- Bachelor's degree (not necessarily in computer science).
- Counseling session with a graduate counselor.
- A grade of "B-" or better in the Prerequisite Phase courses.

The following courses are required as part of the Prerequisite Phase. Those students with extensive coursework and/or experience in the computer science field may take an equivalency exam, the Graduate Assessment Exam (GAE) for the courses listed as Graduate Assessment Courses. The exam is offered at the beginning of each quarter. Applications for the exam must be received at least three weeks before the exam. A late fee will be charged for applications after this date. Exam dates, application forms, and a study guide are available from the department (phone 312/362-8714). For more information on this exam, contact a graduate advisor.

GRADUATE ASSESSMENT PREREQUISITE PHASE COURSES: COMPUTER SCIENCE

C Language. A knowledge of C language is required. Suggested courses are:

- CSC 215 Introduction to Programming Using C
- OR
- CSC 225 C Language for Programmers

Principles of Computer Science. Suggested courses are either the undergraduate two quarter sequence:

- CSC 310 Principles of Computer Science I (Prerequisite CSC 215) AND
- CSC 311 Principles of Computer Science II (Prerequisite CSC 310)
- OR
- CSC 410 Principles of Computer Science (Restricted to graduate students with programming experience. Prerequisite CSC 225)

File Structure and File Processing. Suggested course is:

- CSC 342 File Processing and Data Management (Prerequisite CSC 311 or CSC 410)

Discrete Mathematics. Suggested course is:

- MAT 140 Discrete Mathematics

OTHER PREREQUISITE PHASE COURSES: COMPUTER SCIENCE

The following competencies are required as part of the Prerequisite Phase. Students with related coursework and/or experience in these areas should consult with a graduate advisor.

Programming skills. The knowledge of a second high-level programming language is required. This course must be selected from the following:

- CSC 203 COBOL Programming
- CSC 205 FORTRAN Programming
- CSC 210 Programming with PL/I
- CSC 220 Programming in PASCAL
- CSC 230 Programming in ADA
Assembly Language. Either documented work experience in an assembly language or documented coursework in assembly language programming (with a grade of "B-" or better) will be accepted as fulfilling this requirement. Only one course is required. (Note: Assembly Language is not required for students choosing the Data Analysis concentration.)
Suggested courses are:
- **CSC 312** Assembly Language and Machine Organization
- **OR**
- **CSC 344** IBM Assembly Language

Quantitative Methods. The quantitative methods requirements are met by taking courses equivalent to the following:
- **MAT 145** Calculus (or MAT 150-151)
- **CSC 323** Data Analysis and Statistical Software 1

Degree Requirements
Students must complete 13 courses (52 hours) beyond the Prerequisite Phase and after receiving full degree-seeking admission.

Successful completion of the Master of Science in Computer Science consists of:
- Completion of Core Knowledge Phase courses
- Passing the Core Knowledge examination
- Completion of Advanced Phase courses

The Core Knowledge and Advanced Phase courses are chosen from one of the following concentrations:
- Artificial Intelligence
- Standard Computer Science
- Data Communications
- Data Analysis
- Visual Computing

**CORE KNOWLEDGE PHASE COURSES: COMPUTER SCIENCE**
Conditionally admitted students may register for at most three graduate courses prior to successful completion of the Prerequisite Phase.

Artificial Intelligence, Standard Computer Science, Data Communication, and Visual Computing Concentrations
- **CSC 420** Discrete Structures
- **CSC 442** Data Structures
- **CSC 445** Computer Architecture
- **CSC 446** Operating Systems
- **CSC 491** Design and Analysis of Algorithms

Data Analysis Concentration
- **CSC 420** Discrete Structures
- **CSC 423** Data Analysis and Regression
- **CSC 442** Data Structures
- **CSC 446** Operating Systems
- **CSC 449** Database Technologies
CORE KNOWLEDGE EXAMINATION: COMPUTER SCIENCE

The examination covers the subject matter of the Core Knowledge Phase courses required for the student's chosen concentration. Students take this examination as soon as they successfully complete their Core Knowledge Phase course requirements. The exam is offered in the Autumn, Winter, and Spring quarters. Students are allowed at most two attempts at this examination. Two failures result in dismissal from the graduate program. Call the department at (312)362-8381 for further details on this examination.

Deadline: The student must submit a written application three months before taking the Core Knowledge Examination.

ADVANCED PHASE COURSES: COMPUTER SCIENCE

Students must fulfill the course requirements of their concentration. Waiver of some of these courses is possible in individual cases with the approval of the Director of Graduate Studies.

Conditionally admitted students receive credit for Advanced Phase courses only after successful completion of the Prerequisite Phase. Fully admitted students may register for at most three Advanced Phase courses prior to passing the Core Knowledge Phase Examination.

Artificial Intelligence Concentration

CSC 480  Artificial Intelligence
CSC 580  Artificial Intelligence Programming I
CSC 585  Knowledge Representation I

One of the following:

CSC 586  Artificial Intelligence Programming II
CSC 588  Knowledge Representation II
CSC 696  Master's Project

Two of the following:

CSC 481  Pattern Recognition and Machine Perception
CSC 581  Knowledge-based Systems
CSC 582  Machine Learning
CSC 583  Natural Language Understanding
CSC 584  Computer Vision
CSC 586  Artificial Intelligence Programming II
CSC 587  Cognitive Science
CSC 696  Master's Project

Two elective courses (see the Elective Course Restrictions Section below).

Standard Computer Science Concentration

CSC 447  Concepts of Programming Languages

Three of the following courses including at least one 500-level course:

CSC 432  Computer and Information Systems Modeling
CSC 448  Computer Design
CSC 465  Software Engineering
CSC 469  Introduction to Computer Graphics
CSC 480  Artificial Intelligence
CSC 490  Theory of Computation
CSC 493  Formal Grammars and Automata Theory
CSC 495  Logic Design and Switching Theory
CSC 503  Parallel Algorithms
CSC 520  Advanced Discrete Structures
CSC 532  Formal Specification Methods
CSC 535  Formal Semantics of Programming Languages
CSC 539  Three-Dimensional Graphics
CSC 545  Advanced Computer Organization
CSC 546  Operating Systems Design
CSC 548  Advanced Compiler Design
CSC 591  Advanced Topics in Algorithms
CSC 696  Master's Project
CSC 698  Master's Thesis

Four elective courses (see the Elective Course Restriction Section below).

Data Communications Concentration

Four of the following including at least one 500 level course:
CSC 432  Computer and Information Systems Modeling
CSC 462  Data Communications
CSC 463  Computer Networks
CSC 489  Queuing Theory with Computer Applications
CSC 561  Distributed Processing
CSC 562  Computer Communications Network Design and Analysis
CSC 563  Protocols and Techniques for Data Networks
CSC 564  Local Area Networks
CSC 696  Master's Project
CSC 698  Master's Thesis

Four elective courses (see the Elective Course Restriction Section below).

Data Analysis Concentration

Two of the following:
CSC 434  Object-oriented Programming
CSC 451  Database Design
CSC 459  File Management and Organization
CSC 462  Data Communications
CSC 465  Software Engineering I
CSC 466  Software Engineering II
CSC 469  Introduction to Computer Graphics
CSC 480  Artificial Intelligence
CSC 491  Design and Analysis of Algorithms
CSC 549  Advanced Database Technologies
CSC 574  Decision Support Systems and Expert Systems

Two of the following:
CSC 424  Advanced Data Analysis
CSC 432  Computer and Information Systems Modeling
CSC 436  Foundations of Visual Computing
CSC 467  Software Reliability
CSC 468  Software Measurement
CSC 481  Pattern Recognition and Machine Perception
CSC 489  Queuing Theory with Computer Applications
CSC 498  Digital Signal Processing
CSC 584  Computer Vision
CSC 598  Topics in Data Analysis
ECO 512  Applied Time Series and Forecasting

One course from either of the above listings or
CSC 690  Research Seminar
CSC 696  Master's Project
Three elective courses

**Visual Computing Concentration**
- CSC 436 Foundations of Visual Computing
- CSC 469 Introduction to Computer Graphics

One of the following:
- CSC 481 Pattern Recognition and Machine Perception
- CSC 584 Computer Vision

Choose three of the following, but not if applied above:
- CSC 437 Graphical User Interfaces
- CSC 481 Pattern Recognition and Machine Perception
- CSC 538 Vision Architectures
- CSC 539 Three-Dimensional Graphics
- CSC 570 Visualization
- CSC 578 Neural Networks
- CSC 582 Machine Learning
- CSC 584 Computer Vision
- CSC 587 Cognitive Science
- CSC 590 Topics in Pattern Recognition
- CSC 592 Topics in Computer Vision
- CSC 595 Topics in Graphics

Two elective courses (see Elective Course Restriction Section below).

**Personalized Concentration**

Students with superior results on the Core Knowledge Phase examination for one of the above concentrations may be allowed to personalize their Advanced Phase requirements. After planning their personalized concentration with their advisor, they must submit the plan to the Director of Graduate Studies for approval. Permission for the personalized concentration must be obtained prior to completion of most of the concentration courses.

**ELECTIVE COURSE RESTRICTIONS**

Elective courses are those Computer Science courses in the 411-599 range. Credit will be given for courses taken outside the department only if they are approved by the Associate Dean of the College of Liberal Arts and Sciences (consult the appropriate section on the transfer credit policies of the College) and the Director of Graduate Studies. An application can be obtained from the department.

Courses suggested for the Prerequisite Phase never count for elective credit. (This includes CSC 410 and 500-level GSB courses.) Courses required for the Core Knowledge Phase only count for elective credit if they are not required for the student’s own concentration.

Any course required for the student’s concentration but taken as part of the requirements of another degree earned by the student may be waived but cannot be used for elective credit. Conditionally admitted students may not receive elective credit for courses taken prior to passing the Graduate Assessment Examination. Fully admitted students will receive elective credit for courses taken before passing the Core Knowledge Examination only if the total number of advanced courses taken does not exceed three.

**GRADE REQUIREMENTS**

Fully admitted students must maintain an average of at least 2.50 (out of a maximum of 4.00). Students who do not maintain this average are dismissed from the program. The department will notify such students as soon as possible. However, students who take courses after their average falls below 2.50 but before departmental notification will not receive any special tuition refunds.
In order to graduate, students must have an overall grade point average no less than 2.50 (out of a maximum of 4.00).

Incomplete grades are only given if the course instructor considers them justified and if the student obtains the departmental chairman’s permission. The departmental secretary will provide the appropriate permission form. Incompletes must be completed within one year or else they may change to grades of F.

MASTER OF SCIENCE: INFORMATION SYSTEMS

The masters degree program consists of three phases:

- Prerequisite Phase
- Core Knowledge Phase
- Advanced Phase

The Prerequisite Phase guarantees that all students have a common background. Successful completion of the Prerequisite Phase constitutes part of the admission requirements for the Masters degree program.

The Core Knowledge and Advanced Phase constitute the degree program. The Core Knowledge Phase prepares students for their chosen concentration. In the Advanced Phase, students specialize in their concentration area. The concentration requirements are tailored to meet individual students needs. The student must pass an examination to move from one phase to another.

Admission Requirements

All applicants who satisfy general graduate college admission requirements initially receive conditional admittance and may then pursue a degree program. For full admission to a degree program, students must have the following:

- Bachelor's degree (not necessarily in computer science).
- Counseling session with a graduate counselor.
- A grade of “B−” or better in the Prerequisite Phase courses.

The following courses are required as part of the Prerequisite Phase. Those students with extensive coursework and/or experience in the computer science field may take an equivalency exam, the Graduate Assessment Exam (GAE) for the courses listed as Graduate Assessment Courses. The exam is offered at the beginning of each quarter. Applications for the exam must be received at least three weeks before the exam. A late fee will be charged for applications after this date. Exam dates, application forms, and a study guide are available from the department (phone 312/362-8714). For more information on this exam, contact a graduate advisor.

GRADUATE ASSESSMENT PREREQUISITE PHASE COURSES: INFORMATION SYSTEMS

**Programming skills in two languages.** A knowledge of two high-level languages is required.

One must be C language. Students who choose the Standard Information Systems concentration must qualify in COBOL. Students who choose the Software Engineering concentration must qualify in ADA. Suggested courses are:

- **CSC 203** COBOL Programming
- **CSC 215** Introduction to Programming Using C
- **CSC 225** C Language for Programmers
- **CSC 230** Programming in ADA
Principles of Computer Science. Suggested courses are either the undergraduate two quarter sequence:

CSC 310  Principles of Computer Science I (Prerequisite CSC 215) AND
CSC 311  Principles of Computer Science II (Prerequisite CSC 310)
OR
CSC 410  Principles of Computer Science (Restricted to graduate students with programming experience. Prerequisite CSC 225)

File Structures and File Processing. (Required for the Standard Information Systems concentration only) Suggested courses are:

CSC 204  Advanced Topics in COBOL (Prerequisite CSC 203)
OR
CSC 342  File Processing and Data Management (Prequisite CSC 311 or CSC 410).

Systems Analysis. Required for the Standard Information Systems concentration only.

CSC 375  Information Systems Analysis and Design

Discrete Mathematics. Suggested course is:

MAT 140  Discrete Mathematics

OTHER PREREQUISITE PHASE COURSES: INFORMATION SYSTEMS

The following competencies are required as part of the Prerequisite Phase. Equivalency exams are not offered for the following courses. Students with related coursework and/or experience in these areas should consult with a graduate advisor.

Quantitative Methods. The quantitative methods requirements are met by taking courses equivalent to the following:

MAT 145  Calculus (or MAT 150-151) Required for Software Engineering concentration only.
CSC 323  Data Analysis and Statistical Software I

Degree Requirements

Students must complete 13 courses (52 hours) beyond the Prerequisite Phase and after receiving full degree-seeking admission.

Successful completion of the Master of Science in Information Systems consists of:

• Completion of Core Knowledge Phase courses
• Passing the Core Knowledge examination
• Completion of Advanced Phase courses

The Core Knowledge and Advanced Phase courses are chosen from one of the following concentrations:

• Standard Information Systems
• Software Engineering

CORE KNOWLEDGE PHASE COURSES: INFORMATION SYSTEMS

Conditionally admitted students may register for at most three graduate courses prior to successful completion of the Prerequisite Phase.

Standard Information Systems Concentration

CSC 411  Computers in Information Systems and Telecommunications
CSC 446  Operating Systems
CSC 449  Database Technologies
CSC 461  Basic Communications Systems
CSC 475  Information Systems Analysis and Design
Software Engineering Concentration
   CSC 420  Discrete Structures
   CSC 423  Data Analysis and Regression
   CSC 442  Data Structures
   CSC 465  Software Engineering I
   CSC 466  Software Engineering II

CORE KNOWLEDGE EXAMINATION: INFORMATION SYSTEMS
   The examination covers the subject matter of the Core Knowledge Phase courses required for the student's chosen concentration. Students take this examination as soon as they successfully complete their Core Knowledge Phase course requirements. The exam is offered in the Autumn, Winter, and Spring quarters. Students are allowed at most two attempts at this examination. Two failures result in dismissal from the graduate program. Call the department at (312)362-8381 for further details on this examination.
   Deadline: The student must submit a written application three months before taking the Core Knowledge Examination.

ADVANCED PHASE COURSES: INFORMATION SYSTEMS
   Students must fulfill the course requirements of their concentration. Waiver of some of these courses is possible in individual cases with the approval of the Director of Graduate Studies.

   Conditionally admitted students receive credit for Advanced Phase courses only after successful completion of the Prerequisite Phase. Fully admitted students may register for at most three Advanced Phase courses prior to passing the Core Knowledge Examination.

   Students must complete the Advanced Phase courses required for their chosen concentration. The course requirements by concentration are listed below.

Standard Information Systems Concentration
   CSC 477  Software and Systems Project Management
   CSC 553  Advanced Topics for Systems Development
   CSC 574  Decision Support Systems and Expert Systems

One of the following:
   CSC 423  Data Analysis and Regression
   CSC 432  Computer and Information Systems Modeling
   CSC 467  Software Reliability
   CSC 468  Software Measurement

Three of the following (at least one 500-level course):
   CSC 451  Database Design
   CSC 462  Data Communications
   CSC 465  Software Engineering I
   CSC 466  Software Engineering II
   CSC 478  End User Computing Issues
   CSC 480  Artificial Intelligence
   CSC 483  Information Processing Management
   CSC 484  Computerized Accounting Systems
   CSC 494  Software Methodologies
   CSC 554  Information Engineering
   CSC 577  Management of Information Technology
   CSC 571  Software Maintenance
   CSC 572  Computer Security
   CSC 596  Topics in Information Systems
CSC 690 Research Seminar
CSC 696 Master's Project
CSC 698 Master's Thesis

One elective course

Software Engineering Concentration
CSC 447 Concepts of Programming Languages

One of the following:
CSC 696 Master's Project
CSC 698 Master's Thesis

Four of the following, including either CSC 467 or CSC 468:
CSC 424 Advanced Data Analysis
CSC 449 Database Technologies
CSC 451 Database Design
CSC 467 Software Reliability
CSC 468 Software Measurement
CSC 477 Software and Systems Project Management
CSC 480 Artificial Intelligence
CSC 532 Formal Specification Methods
CSC 533 Software Validation and Verification
CSC 558 Software Methodologies
CSC 581 Knowledge-based Systems
CSC 587 Cognitive Science
CSC 590 Research Seminar

Two elective courses (see Elective Course Restriction section below).

ELECTIVE COURSE RESTRICTIONS
Elective courses are those Computer Science courses in the 411-599 range. Credit will be given for courses taken outside the department only if they are approved by the Associate Dean of the College of Liberal Arts and Sciences (consult the appropriate section on the transfer credit policies of the College) and the Director of Graduate Studies. An application can be obtained from the department.

Courses suggested for the Prerequisite Phase never count for elective credit. (This includes CSC 410 and 500-level GSB courses.) Courses required for the Core Knowledge Phase only count for elective credit if they are not required for the student's own concentration.

Any course required for the student's concentration but taken as part of the requirements of another degree earned by the student may be waived but cannot be used for elective credit. Conditionally admitted students may not receive elective credit for courses taken prior to passing the Graduate Assessment Examination. Fully admitted students will receive elective credit for courses taken before passing the Core Knowledge Examination only if the total number of advanced courses taken does not exceed three.

GRADE REQUIREMENTS
Fully admitted students must maintain an average of at least 2.50 (out of a maximum of 4.00). Students who do not maintain this average are dismissed from the program. The department will notify such students as soon as possible. However, students who take courses after their average falls below 2.50 but before departmental notification will not receive any special tuition refunds.

In order to graduate, students must have an overall grade point average no less than 2.50 (out of a maximum of 4.00).
Incomplete grades are only given if the course instructor considers them justified and if
the student obtains the departmental chairman's permission. The departmental secretary will
provide the appropriate permission form. Incompletes must be completed within one year
or else they may change to grades of F.

MASTER OF SCIENCE: TELECOMMUNICATION SYSTEMS

The masters degree program consists of three phases:

• Prerequisite Phase
• Core Knowledge Phase
• Advanced Phase

The Prerequisite Phase guarantees that all students have a common background. Success-
ful completion of the Prerequisite Phase constitutes part of the admission requirements for
the Masters degree program.

The Core Knowledge and Advanced Phase constitute the degree program. The Core Knowl-
edge Phase prepares students for their chosen concentration. In the Advanced Phase, stu-
dents specialize in their concentration area. The concentration requirements are tailored to
meet individual students needs. The student must pass an examination to move from one
phase to another.

Admission Requirements

All applicants who satisfy general graduate college admission requirements initially receive
conditional admittance and may then pursue a degree program.
For full admission to a degree program, students must have the following:

• Bachelor's degree (not necessarily in computer science).
• Counseling session with a graduate counselor.
• A grade of "B-" or better in the Prerequisite Phase courses.

The following courses are required as part of the Prerequisite Phase. Those students with
extensive coursework and/or experience in the computer science field may take an equivalency
exam, the Graduate Assessment Exam (GAE) for the courses listed as Graduate Assessment
Courses. The exam is offered at the beginning of each quarter. Applications for the exam
must be received at least three weeks before the exam. A late fee will be charged for applica-
tions after this date. Exam dates, application forms, and a study guide are available from
the department (phone 312/362-8714). For more information on this exam, contact a gradu-
ate advisor.

GRADUATE ASSESSMENT PREREQUISITE PHASE COURSES:
TELECOMMUNICATION SYSTEMS

Programming skills in one high-level language. Suggested courses are:

CSC 215 Introduction to Programming Using C
OR
CSC 225 C Language for Programmers

Principles of Computer Science. (Required for the Computer Science concentration only.)
Suggested courses are either the undergraduate two quarter sequence:

CSC 310 Principles of Computer Science I (Prerequisite CSC 215) AND
CSC 311 Principles of Computer Science II (Prerequisite CSC 310)
OR
CSC 410 Principles of Computer Science (Restricted to graduate students with
programming experience. Prerequisite CSC 225)
OTHER PREREQUISITE PHASE COURSES: TELECOMMUNICATION SYSTEMS

The following competencies are required as part of the Prerequisite Phase. Equivalency exams are not offered for the following courses. Students with related coursework and/or experience in these areas should consult with a graduate advisor.

Physics.

PHY 405 Physical Principles of Communication Systems

Quantitative Methods.

MAT 145 Calculus for Information Systems
CSC 323 Data Analysis and Statistical Software 1

Degree Requirements

Students must complete 12 courses (48 hours) beyond the Prerequisite Phase and after receiving full degree-seeking admission.
Successful completion of the Master of Science in Telecommunication Systems consists of:

• Completion of Core Knowledge Phase courses
• Passing the Core Knowledge examination
• Completion of Advanced Phase courses

The Core Knowledge and Advanced Phase courses are chosen from one of the following concentrations:

• Standard Telecommunication Systems
• Computer Science

CORE KNOWLEDGE PHASE COURSES: TELECOMMUNICATION SYSTEMS

Conditionally admitted students may register for at most three graduate courses prior to successful completion of the Prerequisite Phase.

Standard Telecommunications Concentration

CSC 411 Computers in Information Systems and Telecommunications
CSC 461 Basic Communication Systems
CSC 462 Data Communications
CSC 463 Computer Networks and Data Systems
CSC 464 Voice Communication Networks

Computer Science Concentration

CSC 445 Computer Architecture
CSC 446 Operating Systems
CSC 461 Basic Communication Systems
CSC 462 Data Communications
CSC 464 Voice Communication Networks

CORE KNOWLEDGE EXAMINATION: TELECOMMUNICATION SYSTEMS

The examination covers the subject matter of the Core Knowledge Phase courses required for the student's chosen concentration. Students take this examination as soon as they successfully complete their Core Knowledge Phase course requirements. The exam is offered in the Autumn, Winter, and Spring quarters. Students are allowed at most two attempts at this examination. Two failures result in dismissal from the graduate program. Call the department at (312)362-8381 for further details on this examination.
Deadline: The student must submit a written application three months before taking the Core Knowledge Examination.
ADVANCED PHASE COURSES: TELECOMMUNICATION SYSTEMS

Students must fulfill the course requirements of their concentration. Waiver of some of these courses is possible in individual cases with the approval of the Director of Graduate Studies.

Conditionally admitted students receive credit for Advanced Phase courses only after successful completion of the Prerequisite Phase. Fully admitted students may register for at most three Advanced Phase courses prior to passing the Core Knowledge Examination.

**Standard Telecommunications Concentration**
- CSC 476 Economics of Telecommunication Systems
- CSC 565 Voice and Data Integration
- CSC 566 Integrated Services Digital Networks
- CSC 567 Telecommunication System Design and Management
- CSC 569 Telecommunications Regulation, Policy and Law

One of the following:
- CSC 563 Protocols and Techniques for Data Networks
- CSC 564 Local Area Networks
- CSC 568 Network Management

One elective course (see the Elective Course Restriction section below).

**Computer Science Concentration**
Four of the following:
- CSC 432 Computer and Information Systems Modeling
- CSC 450 Office Systems
- CSC 463 Computer Networks
- CSC 561 Distributed Processing
- CSC 562 Computer-Communication Network Design and Analysis
- CSC 563 Protocols and Techniques for Data Networks
- CSC 564 Local Area Networks
- CSC 565 Voice and Data Integration
- CSC 566 Integrated Services Digital Networks
- CSC 567 Telecommunication System Design and Management

Three elective courses (see the Elective Course Restriction section below).

**ELECTIVE COURSE RESTRICTIONS**

Elective courses are those Computer Science courses in the 411-599 range. Credit will be given for courses taken outside the department only if they are approved by the Associate Dean of the College of Liberal Arts and Sciences (consult the appropriate section on the transfer credit policies of the College) and the Director of Graduate Studies. An application can be obtained from the department.

Courses suggested for the Prerequisite Phase never count for elective credit. (This includes CSC 410 and 500-level GSB courses.) Courses required for the Core Knowledge Phase only count for elective credit if they are not required for the student's own concentration.

Any course required for the student's concentration but taken as part of the requirements of another degree earned by the student may be waived but cannot be used for elective credit. Conditionally admitted students may not receive elective credit for courses taken prior to passing the Graduate Assessment Examination. Fully admitted students will receive elective credit for courses taken before passing the Core Knowledge Examination only if the total number of advanced courses taken does not exceed three.
Grade Requirements

Fully admitted students must maintain an average of at least 2.50 (out of a maximum of 4.00). Students who do not maintain this average are dismissed from the program. The department will notify such students as soon as possible. However, students who take courses after their average falls below 2.50 but before departmental notification will not receive any special tuition refunds.

In order to graduate, students must have an overall grade point average no less than 2.50 (out of a maximum of 4.00).

Incomplete grades are only given if the course instructor considers them justified and if the student obtains the departmental chairman's permission. The departmental secretary will provide the appropriate permission form. Incompletes must be completed within one year or else they may change to grades of F.

MASTER OF SCIENCE: MANAGEMENT INFORMATION SYSTEMS

The masters degree program consists of three phases:

- Prerequisite Phase
- Core Knowledge Phase
- Advanced Phase

The Prerequisite Phase guarantees that all students have a common background. Successful completion of the Prerequisite Phase constitutes part of the admission requirements for the Masters degree program.

The Core Knowledge and Advanced Phase constitute the degree program. The Core Knowledge Phase prepares students for their chosen concentration. In the Advanced Phase, students specialize in their concentration area. The concentration requirements are tailored to meet individual students needs. The student must pass an examination to move from one phase to another.

Admission Requirements

All applicants who satisfy general graduate college admission requirements initially receive conditional admittance and may then pursue a degree program.

For full admission to a degree program, students must have the following:

- Bachelor's degree completed
- Satisfactory completion of GMAT.
- Counseling session with a graduate counselor.
- A passing score on the Graduate Assessment Examination or a grade of "B-" or better in the corresponding Prerequisite Phase courses.

PREREQUISITE PHASE: MANAGEMENT INFORMATION SYSTEMS

The purpose of the Prerequisite Phase is to ensure a common background of knowledge in general business administration, software development, and quantitative methods. Successful completion of the Prerequisite Phase is required to move from the Prerequisite Phase to the Core Knowledge Phase and become fully admitted. To complete this phase, students either pass the DePaul courses listed below or they pass the corresponding written examinations. A grade of "B-" or better is required in the software development courses and MAT 140. The exam is offered at the beginning of each quarter. Applications for the exam must be received at least two weeks before the exam. A late fee will be charged for applications
after this date. Exam dates, application forms, and a detailed study guide are available from the department (phone 312/362-8381). For more information on this exam, contact a graduate advisor. The MIS Prerequisite Phase covers the following topics:

**General Business Administration**
- **GSB 503** Organizational Behavior: Micro Perspective
- **GSB 504** Financial Accounting
- **GSB 505** Contemporary Economic Analysis
- **GSB 507** Operations Management
- **GSB 508** Marketing Management
- **GSB 509** Legal Perspectives of Business Fundamentals
- **GSB 513** Money, Banking and Economic Activity

**Software Development**
- **CSC 203** COBOL Programming
- **CSC 204** Advanced Topics in COBOL
- **CSC 215** Introduction to Structured Programming Using C or
- **CSC 225** Programming in C
- **CSC 310-311 or 410** Principles of Computer Science

**Quantitative Methods**
- **GSB 501** Mathematical Analysis for Decision Making
- **MAT 140** Discrete Mathematics
- **CSC 323** Data Analysis and Statistical Software 1

**Degree Requirements**

The requirements for the Core Knowledge and Advanced Phases are presented below in total. Students complete 13 graduate courses. At least 6 of these courses are chosen from the Computer Science offerings and at least 6 of them from the Management Information Systems offerings. The remaining course is chosen from either of the two groups of courses.

**CORE KNOWLEDGE PHASE COURSES: MANAGEMENT INFORMATION SYSTEMS**

These consist of 3 Computer Science courses and 3 Management Information Systems courses for a total of 6 courses. Most students complete the courses listed below. However, waiver of some of these courses is possible for students with related course work or experience but requires permission of their advisor. Students are still responsible for the content of these courses on the Core Knowledge Examination. The course requirements are:

**Management Information Systems**
- **MIS 674** Systems Analysis and Design: Concepts, Tools, and Techniques
- **MIS 676** Management Information Systems: Planning, Design, and Implementation
- **MIS 677** Information Systems Project Management

**Computer Science**
- **CSC 446** Computer Operating Systems
- **CSC 449** Database Technologies
- **CSC 459** File Management and Organization
CORE KNOWLEDGE EXAMINATION: MANAGEMENT INFORMATION SYSTEMS

This examination covers the subject matter of the three computer science Core Knowledge Phase courses listed above. Students take this examination as soon as they successfully complete their Core Knowledge Phase courses. A "B-" or better is required for the MIS courses in the Core Knowledge Phase. If a student receives a "C+” or lower in one of these courses they have two options: 1) Re-take the course and receive a "B-" or 2) Take the corresponding comprehensive exam and receive a passing grade.

Students who have related coursework or experience may earn a waiver of some of these courses by passing the Core Knowledge Examination but require the permission of their advisor to attempt this. Students earn a waiver only if they pass the associated Core Knowledge Examination material in one attempt. Waived Management Information Systems courses are replaced by Management Systems electives. Waived Computer Science courses are replaced by Computer Science electives.

Students must pass this examination in two attempts or they will not be allowed to continue in the program.

Deadline: Students must submit a written application three months before taking the Core Knowledge Examination.

ADVANCED PHASE COURSES: MANAGEMENT INFORMATION SYSTEMS

The Advanced Phase consists of 7 graduate level courses. Students must fulfill the course requirements in both Management Information Systems and Computer Science. Three of these courses must be selected from the Advanced Phase Management Information Systems courses and three from the Advanced Phase Computer Science courses. The seventh course must be chosen from MIS 686 Introduction to Telecommunications Management or from CSC 461 Basic Communication Systems. Waiver of some of these courses is possible in individual cases but requires the approval of the student's advisor.

Management Information Systems

Students must take at least two courses from Group A and one from Group B or one from Group A and two from Group B. Waiver of these requirements is possible in individual cases but requires the permission of the student's advisor.

Group A:
- MIS 675 Advanced Systems Techniques
- MIS 678 Problems in Systems Design
- MIS 689 Decision Support Systems and Expert Systems

Group B:
- MIS 683 Information Processing Management
- MIS 684 Computers in Society
- MIS 685 Security, Accuracy, and Privacy in Computer Systems

Students who have extra Management Information Systems electives due to waivers of required courses choose from the following courses or from courses in the above groups. With the permission of the MIS Program Director for Systems Management, they may also take other graduate courses offered by the College of Commerce.

- ACC 535 Accounting Systems
- ACC 526 Microcomputer Uses in Decision Making
- ACC 527 Construction and Use of Decision Models
- ACC 588 Management Consulting in the Accounting Profession
- GSB 511 Accounting Analysis for Decision Making
- MGT 510 Topics in Production Operation Management
- MGT 580 Operations Research
Computer Science

Students must take 3 Advanced Phase Computer Science courses chosen from the following two groups. Waiver of these requirements is possible in individual cases but requires the permission of the student's advisor.

1 course chosen from
- **CSC 423** Data Analysis and Regression
- **CSC 432** Computer and Information Systems Modeling
- **CSC 467** Software Reliability
- **CSC 468** Software Measurement

2 courses chosen from
- **CSC 450** Office Systems
- **CSC 462** Data Communications
- **CSC 480** Artificial Intelligence
- **CSC 550** Software Methodologies
- **CSC 560** On-Line Systems and Telecommunications
- **CSC 572** Computer Security
- **CSC 574** Decision Support Systems and Expert Systems
- **CSC 581** Knowledge Based Systems

Students who choose their elective course from the Computer Science courses or who have extra Management Information Systems electives due to waivers of required courses choose from the following courses or from courses in the above three groups. With the permission of Dr. Martin Kalin, Program Administrator for CSC, they may also take other graduate courses offered by the Department of Computer Science and Information Systems.

- **CSC 442** Data Structures
- **CSC 489** Queuing Theory with Computer Applications
- **CSC 549** Advanced Database Technologies
- **CSC 565** Voice and Digital Systems
- **ECO 512** Applied Time Series and Forecasting

**DOCTOR OF PHILOSOPHY: COMPUTER SCIENCE**

**Admission Requirements**

In order to be considered for admission to the doctoral program, students minimally must

- hold a master's degree in Computer Science or an allied field,
- submit three letters of recommendation,
- show definite promise for completing the program,
- submit a written statement describing their accomplishments, goals, and interests,
- submit a completed College and Department application form.

**Completeness of credentials.** When important pieces of information, such as transcripts, are lacking, the department is compelled by University regulations to reject the application.

The departmental Ph.D. Administration Committee (PAC) determines which applicants will be admitted to the program. Meeting the minimum admission standards does not guarantee acceptance, since the number of applicants who can be admitted is limited.
Degree Requirements

The following steps are needed to complete the requirements for the degree. The student must

- complete advanced coursework
- be admitted to candidacy
- complete the dissertation

These steps are described in detail below.

Course Requirements

- Doctoral students must complete at least 60 credit hours (15 courses) of graduate coursework beyond the master's degree.
- All students must complete the course
  
  **CSC 426** Values and Computer Technology

  Students need the approval of PAC in writing before registering to apply courses taught outside the department towards the doctoral program's course requirements.

- All students must complete at least 12 credit hours (3 courses) in each of three of the following concentration areas for a total of 36 credit hours. Courses taken at DePaul University as part of a master's degree program may be applied toward these requirements.

  Students take the Doctoral Candidacy exam covering their three concentration areas after completing these courses. See below for further information on this examination and the time limit for taking it.

  The courses in each area are listed below:

Artificial Intelligence

- **CSC 502** Genetic Algorithms
- **CSC 578** Neural Networks
- **CSC 580** Artificial Intelligence Programming I
- **CSC 581** Knowledge-based Systems
- **CSC 582** Machine Learning
- **CSC 583** Understanding Natural Language
- **CSC 584** Computer Vision
- **CSC 585** Knowledge Representation I
- **CSC 586** Artificial Intelligence Programming II
- **CSC 587** Cognitive Science
- **CSC 588** Knowledge Representation II
- **CSC 594** Topics in Artificial Intelligence

Communications

- **CSC 463** Computer Networks and Data Systems
- **CSC 498** Digital Signal Processing
- **CSC 560** On-Line Systems and Telecommunications
- **CSC 562** Computer Communication Network Design and Analysis
CSC 563 Protocols and Techniques for Data Networks
CSC 564 Local Area Networks
CSC 565 Voice and Data Integration
CSC 566 Integrated Services Digital Networks
CSC 567 Telecommunication Systems Design and Management
CSC 568 Network Management
CSC 569 Telecommunications Regulation, Policy, Law and Standards
CSC 593 Topics in Telecommunications
CSC 597 Topics in Data Communications

**Theoretical Computer Science**

CSC 490 Theory of Computation
CSC 493 Automata Theory and Formal Grammars
CSC 497 Information Theory
CSC 503 Parallel Algorithms
CSC 520 Advanced Topics in Discrete Structures
CSC 591 Advanced Topics in Algorithms
CSC 599 Topics in Computer Science

**Computer Information Systems**

CSC 477 Software and Systems Project Management
CSC 483 Information Systems Management
CSC 553 Advanced Topics for Systems Development
CSC 554 Information Engineering
CSC 558 Software Methodologies
CSC 574 Decision Support Systems and Expert Systems
CSC 577 Management of Information Technology
CSC 596 Topics in Information Systems

**Data Analysis and Database**

CSC 451 Database Design
CSC 452 Database Programming
CSC 481 Pattern Recognition and Machine Perception
CSC 489 Queueing Theory with Computer Applications
CSC 549 Advanced Database Technologies
CSC 598 Topics in Data Analysis

**Operating Systems**

CSC 460 Topics in Operating Systems
CSC 489 Queueing Theory with Computer Applications
CSC 504 Parallel Processing
CSC 510 Introduction to Systems Programming
CSC 546 Operating System Design
CSC 572 Computer Security
Visual Computing

CSC 436 Foundations of Visual Computing
CSC 470 Three-dimensional Graphics
CSC 481 Pattern Recognition and Machine Perception
CSC 538 Vision Architectures
CSC 570 Visualization
CSC 584 Computer Vision
CSC 587 Cognitive Science
CSC 590 Topics in Pattern Recognition
CSC 591 Advanced Topics in Algorithms
CSC 592 Topics in Computer Vision
CSC 595 Topics in Graphics

Programming Languages and Environments

CSC 434 Object-oriented Programming
CSC 437 Graphical User Interfaces
CSC 504 Parallel Processing
CSC 535 Formal Semantics of Programming Languages
CSC 548 Advanced Compiler Design
CSC 599 Topics in Computer Science

Software Engineering

CSC 467 Software Reliability
CSC 468 Software Measurement
CSC 477 Software and Systems Project Management
CSC 532 Formal Specification Methods
CSC 533 Software Verification and Validation
CSC 558 Software Methodologies
CSC 571 Software Maintenance
CSC 581 Knowledge-based Systems
CSC 596 Topics in Information Systems

• Students must maintain a grade point average of 3.0 or better to remain in good standing in the program. A course grade below 2.0 is unsatisfactory and will not be counted toward degree requirements. PAC will ask students to withdraw from the doctoral program if the members judge that those students are not progressing satisfactorily toward the degree.

Admission to Candidacy

To be admitted to candidacy, doctoral students must complete the following:

Residency. Three consecutive quarters of full time study at DePaul University beyond the master's level. Full time study is defined as registration for a minimum of eight credit hours (2 courses) in a quarter. With prior approval of PAC, students may satisfy residency requirements by course work, by participation in seminars, or by research performed off campus.

Allied Courses. Complete the course CSC 426 Values and Computer Technology
Doctoral Candidacy Examination. Students need to complete at least three courses in each of their three concentration areas before applying to take this examination. The doctoral candidacy examination consists of three area examinations taken on material from the three concentration areas. The material covered by each area examination is described in the study guides available in the department office. Students must pass this examination in at most two attempts in order to remain in the program. Refer to the section* on program time limitations below.

Candidacy Continuation

Once admitted to candidacy, the doctoral candidate must maintain registration in the University in each of the quarters of the academic year until the degree requirements have been completed. This may be accomplished by registering for one or more four credit hour graduate courses or for one of the non-credit courses CSC 701 Resident Candidacy Continuation and CSC 702 Non-Resident Candidacy Continuation. Failure to comply with this policy governing registration in the University in each of the quarters of the academic year until the degree requirements have been completed may result in dismissal from the doctoral program. Students who have been dismissed from the program for this reason need to follow the College readmission procedures to be considered for reinstatement in the program.

The Dissertation

A student who has been admitted to candidacy must complete the following steps prior to beginning work on their dissertation topic.

- Select a dissertation area.
- Pass an oral qualifying examination on the dissertation area.
- Select a dissertation topic and a dissertation advisor.
- Prepare a written dissertation proposal and present it at a departmental meeting.

After completing these steps, a dissertation committee will be formed subject to the approval of PAC. The committee will consist of three full-time faculty members and will be chaired by the candidate’s dissertation advisor.

Public Dissertation Defense

To complete the degree, the candidate must present a dissertation comprising original and significant research and defend it before the dissertation committee. As part of the dissertation defense, the student will present the results of the dissertation in a departmental seminar. Consult the beginning of this bulletin for information on submitting the dissertation and an abstract of it to the College. Refer to the section on program time limitations below.

Graduation

Doctoral candidates who have passed the dissertation defense and who have submitted their dissertations to the College become eligible for degree conferral. Consult the Handbook for Graduate Studies at the back of this bulletin for procedures and fees related to graduation.

Program Time Limitations

- There is a time limit of four years between admission to the doctoral program and admission to candidacy.
• There is a time limit of two years between admission to candidacy and passing the oral qualifying examination.
• There is a time limit of not less than eight months and not more than five years between admission to candidacy and the dissertation defense.
• Consult the Handbook for Graduate Studies at the back of this bulletin for graduation application deadlines and the deadline for submitting completed dissertations.

Courses

All courses carry 4 hours of credit unless otherwise indicated.

UNDERGRADUATE COURSES
These courses count only for Admission Phase requirements.

CSC 203 COBOL Programming. An introduction to programming in the business oriented language COBOL. The emphasis will be on business problems involving the processing of large quantities of data.

CSC 204 Advanced Topics in COBOL. File management, tape and direct access devices. Indexed sequential, relative, and direct files. Access methods. Subprograms, sort/merge feature. Database applications. (Prerequisite: CSC 203.)

CSC 205 FORTRAN Programming. An introduction to programming in the scientific language FORTRAN. Input and output, branching, looping, subscripted variables, functions, subroutines, non-numerical procedures, algorithm construction and problem solving. (Prerequisite: Math 101 or equivalent.)

CSC 210 Programming with PL/I. An introduction to structured computer programming using the language PL/I. Topics include simple data types, control structures, character string processing, array processing, procedures and functions.

CSC 215 Introduction to Structured Programming Using C. An introduction to structured computer programming. Topics include: simple data types, control structures, character string processing, array processing, functions and structures. (Recommended: Students should have completed or be concurrently enrolled in MAT 140.)

CSC 220 Programming with Pascal. An introduction to structured computer programming using the language Pascal. Topics include: elementary data types, program control structures, character strings, array processing, procedures and functions, and an introduction to user defined data types.

CSC 225 Programming in C. Introduction to the programming language C. Data types, pointers, structures. Function and block structures. Preprocessors. Input and output. UNIX operating system. (Prerequisite: Experience in at least one high level programming language.)

CSC 230 Programming with ADA. An introduction to structured computer programming using the language ADA. Topics include: elementary data types, program control structures, character strings, array processing, procedures and functions. An introduction to user defined data types, packages, generic program units, exceptions and tasks.
CSC 310 **Principles of Computer Science I.** Conceptual models of a computer, machine and assembly language. Internal data representation, programming methods, recursion, stacks, queues. (Prerequisite: CSC 215.)

CSC 311 **Principles of Computer Science II.** Basic data structures, stacks, queues, linked lists. Trees, tree searches and string processing. (Prerequisite: CSC 310.)

CSC 312 **Assembly Language and Computer Organization.** Data representation, addressing schemes, and instruction charts for the VAX/MACRO assembly language. A comparative study of past and present computers. Introduction to computer organization. (Prerequisite: CSC 311 or consent.)

CSC 323 **Introduction to Data Analysis.** Programming in the statistical language SAS. Introduction to data analysis, elementary statistical interference. Regression and correlation. (Prerequisite: CSC 310 and MAT 140.)

CSC 342 **File Processing and Data Management.** File processing environment and file manipulation techniques using C. Algorithms and techniques for implementing stream files, sequential files, direct files, indexed sequential files. Inverted lists, multilists, and database structures will be discussed. Implementation of data management systems. (Prerequisite: CSC 311.)

CSC 344 **IBM Assembly Language Programming I.** Data representation, addressing schemes and instruction formats, introduction to IBM 360/370 assembly language. (Prerequisite: 311 or equivalent.)

CSC 375 **Information Systems Analysis and Design.** Design skills for the preparation of information systems. Principle topics include structured systems analysis and preparation of process/data-flow diagrams, and logical data model design.

MAT 140 **Discrete Mathematics I.** Boolean Algebra, graph theory, and combinatorial analysis with computer applications. (Prerequisite: 131 or three years of high school mathematics.)

MAT 145 **Calculus for Information Systems.** Limits, continuity, the derivative and rules of differentiation, applications of the derivative, exponential and logarithm functions, the definite integral and some methods of integration, improper integrals. (Prerequisite: MAT 141.)

MAT 150 **Calculus I.** Limits and derivatives, extrema, curve sketching, convexity, inverse functions, continuity. (Prerequisite: MAT 131 or three years of high school mathematics.)

MAT 151 **Calculus II.** Definite and indefinite integral; volume; arc length; trigonometric functions; logarithmic and exponential functions. (Prerequisite: MAT 150.)

**GRADUATE COURSES**

410 **Principles of Computer Science.** Conceptual models of a computer, machine and assembly language. Internal data representations, programming methods, recursion. Stacks, queues, linked lists. Trees, tree searches and string processing. This course applies only for Prerequisite Phase Credit. Restricted to students with programming experience; other students should enroll in CSC 310-311. (Prerequisite: CSC 225 or consent from graduate program advisor.)

411 **Computers in Information Systems and Telecommunications.** An introduction to computer organizations and operating systems. Computer components and functions, logic circuits, internal processing, multiprogramming, timesharing, memory management, file management, interrupts and I/O peripheral devices. (Prerequisite: CSC 215.)
CSC

420 **Discrete Structures.** Basic set theoretic and finite algebraic structures with their applications to computer science, graph theory, switching circuits, finite state machines, and other topics. (Prerequisite: MAT 140.)

423 **Data Analysis and Regression.** Multiple regression and correlation, residual analysis, analysis of variance, and robustness. These topics will be studied from a data analytic perspective, supported by an investigation of available statistical software. (Prerequisite: CSC 323 or consent.)

424 **Advanced Data Analysis.** Topics chosen from among multivariate statistical methods, discriminant analysis, principal components analysis, factor analysis, discrete multivariate analysis, and non-parametric statistics. (Prerequisite: CSC 423 or consent.)

426 **Values and Computer Technology.** This course examines the impact of computerized technologies on society with particular attention paid to the ethical issues raised by these social effects.

432 **Computer and Information Systems Modeling.** Simulation, analytic modeling, and measurement of computer and information systems. Operational analysis. Introduction to queueing theory. (Prerequisite: CSC 446 or consent.)

434 **Object-Oriented Programming.** An introduction to object-oriented concepts and programming. Object-oriented applications, object-oriented database systems, architectural issues in object-oriented systems, and areas of research in object-oriented systems will be examined.

436 **Foundations of Visual Computing.** Mathematical and physical notions that underpin computer vision graphics. Topics will include approximation, interpolation, linear shift invariant systems, transforms for signal and analysis, radiant sources, photometry. (Prerequisite: Math 145 and 420.)


442 **Data Structures.** Data structures and their use in computer algorithms. Priority queues, searching, hash functions, string searching and pattern matching, graphs. (Prerequisite: CSC 410 and 420.)

445 **Computer Architecture.** Design and evaluation of modern digital computers. Virtual machines, sequential circuits, instruction formats and addressing modes, basic ALU operations, control design and microprogramming, high-speed memory technology, bus architecture. (Prerequisites: CSC 312 and CSC 420 or PHY 405.)

446 **Computer Operating Systems.** A conceptual introduction to operating systems. Multiprogramming, timesharing, concurrent and cooperating processes, scheduling policies, storage management and file management. (Prerequisites: CSC 311 or 410.)

447 **Concepts of Programming Languages.** Formal treatment of programming language principles, particularly as they relate to translation and compiler design concepts. Grammars, languages, and their syntax and semantics. Concepts of lexical scanning, parsing and ambiguity. Control structures and data flow. The effects of the run-time environment and binding time on various features of programming languages.

448 **Compiler Design.** Design and structure of high level languages. Lexical scan, top down and bottom up syntactic analysis. Syntax directed translation and LR(k) grammars. (Prerequisite: CSC 447 or consent.)
Database Technologies. An introduction to database technology and systems, including storage structures, integrated management systems, query languages, host language facilities, and on-line file organization. These topics will be discussed in relation to existing database systems. (Prerequisite: CSC 442 is recommended.)


Database Design. Design methodologies. Requirement formulation and analysis. Conceptual design, implementation design, physical design. Emphasis will be on data modeling techniques. Class team projects include the design of a complete database structure and implementations of design tools. (Prerequisites: CSC 449, a programming language.)

Database Programming. Programming in large-scale relational database environment using host languages such as C. Design and implementation of on-line applications and report generations. Micro-computer Database System programming. Concepts such as database integrity, transactions, transaction recovery, concurrency, and record locking will be covered. (Prerequisites: CSC 449, 215.)

File Management and Organization. The hardware and software involved in the creation and manipulation of files. Issues in the design, implementation, selection, and use of computer files for the external storage of data. Types of file organizations covered include: pile, sequential, indexed-sequential (static index), B-tree (dynamic index), hash, and multiring. (Prerequisite: CSC 446.)

Topics in Operating Systems. A survey of topics of current interest. (Prerequisite: CSC 446.)

Basic Communication Systems. A history of telecommunications and regulatory and regulatory agencies. The basic communication model and its application to different communication systems, communication models. The telephone architecture, a typical data communication system, common carrier services, mediums and their characteristics. (Prerequisite: PHY 405 is recommended.)

Data Communications. Theory and components of data communication systems, modes, codes, and error detection techniques for data transmission, network protocols and line control procedures, communication carrier facilities and system planning. (Prerequisite: CSC 411 and 461, or CSC 445 only.)

Computer Networks and Data Systems. A detailed discussion of the seven layers of the ISO reference model. Network topology. Introduction to ARPANET, SNA, DECNET and public networks. (Prerequisite: CSC 462 or consent.)

Voice Communication Networks. Basic structure of the public voice network. Principles of voice digitization. Digital and analog transmission, signaling and switching methods. Basic traffic analysis and engineering. (Prerequisite: CSC 461 or consent. PHY 405 is recommended.)

Software Engineering I. Project management fundamentals. Software requirements analysis. Software design and development. Software life cycle. Software tools. Software methodologies. (Prerequisite: 311.)

Software Engineering II. Testing techniques, strategies, and tools. Quality assurance. Verification and validation. Reviews, walkthroughs, and inspections. Management aspects. (Prerequisite: CSC 465 or CSC 475.)

Software Reliability. The practical application and theory of software reliability models. Classification and comparison of software reliability models. Parametric estimation. (Prerequisite: CSC 323, MAT 140, and MAT 145.)
Software Measurement. Software metrics. Productivity, effort, and defect models. Software cost estimation. (Prerequisite: CSC 323 and either CSC 465 or CSC 475.)

Introduction to Computer Graphics. Basic graphics hardware, output primitives, attributes of output primitives, two-dimensional transformations, windowing, segments, interactive input methods. Students will implement a small graphics package using KMS calls while learning about these concepts. Topics in three-dimensional graphics. (Prerequisite: CSC 410.)

Metamathematics, Logical Deduction and Computers. Deduction in formal theories; decidability, consistency and completeness; the limits of formal reasoning, Godel's Theorem, the halting problem for Turing machines, other undecidable problems, elementary recursion theory. (Prerequisite: Some familiarity with formal mathematical reasoning.)

Information Systems for Management. Teleprocessing and data base fundamentals. Overview of business information systems. Information systems planning, development, and maintenance. Behavioral aspects of information systems. The systems approach. Organization, management, and control of information systems. (Prerequisite: CSC 203 or equivalent experience.)

Information Systems Analysis and Design. Design skills for the analysis and design of Information Systems. Topics include logical data base design, data flow diagramming and preparation of data dictionaries, and preparation of mini-specs. Problems will include a case study in the design of an information system. (Prerequisite: CSC 375.)

Economics of Telecommunication Systems. Inventory concepts, asset amortization. Liabilities. Consolidated statements, cost accounting. Capital budgeting, investment decisions. (Prerequisite: CSC 461.)

Software and Systems Project Management. Planning, controlling, organizing, staffing and directing software development activities or information systems projects. Theories, techniques, and tools for scheduling, feasibility study, cost-benefit analysis. Measurement and evaluation of quality and productivity. (Prerequisite: CSC 465 or CSC 475.)

End-User Computing Issues. An introduction and study of the subject of end-user computing and the management of this process thorough the information center. Topics include data and information management, information architecture, software platforms (4th generation languages and vendor packages), hardware platforms, and client-server architectures. (Prerequisite: CSC 446 and two other core knowledge phase courses.)

Artificial Intelligence. A survey of the basic problem areas, concepts, and techniques of artificial intelligence. Emphasis on how AI systems are accomplished via symbolic programming and the explicit representation of knowledge. Laboratory fee.

Pattern Recognition and Machine Perception. Image processing, feature extraction, decision boundaries, Bayesian classifiers, nearest neighbor classifiers, clustering, neural nets. (Prerequisite: One statistics course.)

Legal Aspects of Data Processing. Practical legal considerations arising in a data processing environment are discussed. Areas include: legislation, contracts, copyrights, patents and fraud.

Computerized Accounting Systems. Responsibility accounting systems. Profitability accounting systems. Customer invoicing, cash receipts and accounts receivable information processing. Customer order entry, finished goods inventory, purchasing and receiving information processing. Accounts payable, fixed assets and employee payroll systems. General ledger, budget and profit planning, sales analysis and market planning systems. (Prerequisite: GSB 504 or ACC 103.)

Numerical Analysis. Use of a digital computer for numerical computation. Error analysis, Gaussian elimination and Gauss-Seidel method, solution of non-linear equations, function evaluation, approximation of integrals and derivatives, Monte Carlo methods. (Prerequisites: MAT 220 and a programming course.)


Operations Research I. Linear Programming. The Linear Programming problem and its dual; the simplex method; transportation and warehouse problems; computer algorithms and applications to various fields. (Prerequisites: MAT 220 and any introductory programming course.)

Operations Research II. Optimization Theory. Integer programming; non-linear programming; dynamic programming; game theory. (Prerequisite CSC 487.)

Queueing Theory with Computer Applications. An overview of queuing theory. Queueing systems, related random processes, classification of queues, Priority queueing, Computer time sharing and multi-access systems. (Prerequisite: CSC 432 or consent.)

Theory of Computation. An introduction to the mathematical foundations of computation. Random access and Turing machines, recursive functions, algorithms, computability and computational complexity, intractable problems, NP-complete problems. (Prerequisite: 420.)

Design and Analysis of Algorithms. Methods of designing algorithms including divide-and-conquer, the greedy method, dynamic programming, and backtracking. Emphasis on efficiency issues. (Prerequisite: CSC 420 and CSC 442.)

Automata Theory and Formal Grammars. An introduction to the most important abstract models of computation and their applications: finite state machines and pushdown automata. The relationship between formal grammars and automata. (Prerequisite: CSC 420.)

Logical Design and Switching Theory. Binary and multi-valued switching algebra, logical completeness, minimization of switching functions, combinational logic design, design examples using ICs, sequential logic design, synchronous logic, building blocks for digital design, algorithmic state machines, asynchronous logic, hazards and races, logic testing, simulation, and verification. (Prerequisite: CSC 320 or CSC 420.)

Microprocessors. An introduction to the hardware and software aspects of microprocessors. Digital electronics, microprocessors, programming, interfacing. Laboratory work will involve hands-on-work with microprocessor systems. (Prerequisite: one assembler course.)

Information Theory. An introduction to the basic concepts of information theory and coding theory. Measure of information, the fundamental theorem, Hamming, BCH, and other cyclic codes. (Prerequisite: CSC 420 and CSC 323 or consent.)

Genetic Algorithms. This course covers the basics of genetic algorithms, the schema theory of John Holland, advanced operators and genetic search, as well as applications e.g. genetic-based machine learning, parsing, expert system etc. Students will work on a variety of projects based on the applications discussed in class. (Prerequisite: CSC 491.)

Parallel Algorithms. Development, implementation, and applications of parallel algorithms. Models of parallel computation. Parallel sorting, searching, and graph algorithms, as well as other parallel algorithms, will be studied and implemented on both simulated and actual parallel machines (Prerequisite: CSC 491.)

Parallel Processing. The course covers some specific multiprocessor architectures and how to implement various algorithms on each machine. Students will implement a fairly large project on a multiprocessor. The course will also introduce some compilation techniques, for a better understanding of the issues. (Prerequisite: CSC 491.)

Introduction to Systems Programming. Introduction to macroassembly systems and general macroprocessors. Input and output control systems. Debugging tools. (Prerequisites: CSC 445, CSC 446 or consent.)

Advanced Topics in Discrete Structures. Continuation of CSC 420. Topics vary but may include: groups and group codes; rings, fields, and polynomial codes; network algorithms; Petri nets; advanced topics in graph theory. (Prerequisite: CSC 420.)

Formal Specification Methods. Mathematically based techniques for describing system properties. Survey of formal specification languages. Model-oriented and algebraic specifications (Prerequisites: CSC 420; CSC 465 or 475.)

Software Validation and Verification. Techniques, methods and tools for software inspection and testing. Theory and applications of formal verification of programs. Techniques and tools for automated analysis of programs.


Vision Architectures. A survey of architectures of processors and systems for machine vision, including existing implementations and proposed designs. (Prerequisite: CSC 445 and CSC 584.)


Advanced Computer Organization. Parallel, array and pipeline processors and other topics of current interest. (Prerequisite: CSC 445.)

Operating Systems Design. An algorithmic approach to the design of an operating system. Topics include concurrent programming methods; process and resource control; deadlocks; file systems. (Prerequisite: CSC 446.)
548 Advanced Compiler Design. Emphasis on practical problems in implementing compilers, data flow analysis, code optimization, error analysis. Discussion of compiler generators. As a class project students will write a compiler. (Prerequisite: CSC 448.)

549 Advanced Database Technologies. Study and comparison of relational, hierarchical and network database systems. Problems of implementation of database management systems. Critical evaluation of commercial database systems.

553 Advanced Topics for Systems Development. Rapid application development approach to information systems development emphasizing integrated use of CASE products. The integration of tools, methodology, management, and project and user teams. Topics include evaluation and implementation of CASE products, object-oriented modeling, and methods for real-time systems. Case studies and systems project. (Prerequisite: CSC 475 or CSC 465.)

554 Information Engineering. Application of structured techniques on enterprise-wide data models, information architecture, and cross-functional models. Stages for information strategy planning, business area analysis, joint requirements planning, and I.E. methodology. Automated tools, organizational strategies and economics of financial justification. Case studies. (Prerequisite: CSC 553.)

558 Software Methodologies. Recently developed techniques for software requirements analysis, specification, and design. (Prerequisite: CSC 465.)

560 On-Line Systems and Telecommunications. On-line system design and development: technical design control; network topology; telecommunications (voice and data) hardware and software; telecommunications systems; network architecture; telecommunications deregulation; technology forecast. Study of large scale on-line systems. (Prerequisite: CSC 446.)

561 Distributed Processing. Interconnect technologies, multicomputer software including synchronization problems and message communication software. Performance requirement analysis and system design. Case studies of distributed systems. The special problems of data base.

562 Computer-Communication Network Design and Analysis. Quantitative approaches to the design of data communications networks. Practical examples of networks. Statistical multiplexing and buffering at communication concentrators. Topics in overall network design. (Prerequisites: CSC 432, 462, or consent.)

563 Protocols and Techniques for Data Networks. Packet communications; transport protocols; terminal, file transfer, and remote job protocols; packet broadcast protocols; security; data base management in distributed networks. (Prerequisite: CSC 463 or consent.)

564 Local Area Networks. A detailed discussion of the current standards and technology. Medium access techniques, topologies, network operating systems, applications, and an introduction to several commercial and research networks. (Prerequisite: CSC 463.)

565 Voice and Data Integration. Methods for data transmission and switching over Wide Area Network telecommunications facilities, DDS and T1 networking. Alternate voice digitization techniques. Microwave, satellite, and fiber optic transmission systems. Structure and evolution of the digital telecommunications network. (Prerequisites: 462 and 464.)

566 Integrated Services Digital Networks. A study of the Integrated Services Digital Network (ISDN) including its structure, services and protocols. How current network switching and transmission methods must be modified and expanded to allow integration of voice and data services. A survey of current LEC and IXC ISDN offerings. Future trends in integrated communication networks. (Prerequisites: 463 and 464.)
**Telecommunication Systems Design and Management.** The theory and practice of telecommunication system design. Ongoing systems management. Telecommunication management including selection of vendors/systems, structuring an RFP systems proposal analysis, computer aided telecommunications management. Telecommunication management strategies from a business perspective. (Prerequisite: CSC 464. CSC 565 is recommended.)

**Network Management.** Support, maintenance and control functions. Facilities Management. Network problem resolution. Disaster recovery. Case studies. (Prerequisite: CSC 567.)


**Visualization.** Reconstruction techniques. Voxel classification and isosurface generation. Spatial set operations. Projections of higher-dimensional data sets. Data feature enhancement. False color mapping. Survey of applications in science, engineering and medicine. (Prerequisite: CSC 469 and CSC 436.)


**Computer Security.** Security issues and problems specific to the computer environment. Software and hardware protection mechanisms including encryption and authorization schemes. Special security problems in distributed and teleprocessing environments. (Prerequisite: CSC 446 or consent.)

**Decision Support Systems and Expert Systems.** Analysis, design and implementation of systems for decision support and strategic planning, including decision support systems (DSS), group decision support systems (GDSS), expert systems (ES), executive information systems (EIS), and other applications of artificial intelligence. Case studies, projects on applications, and evaluation of software. (Prerequisite: CSC 475 or consent.)

**Information Retrieval.** Introduction to the design and analysis of computer based information storage and retrieval systems. Retrieval systems using natural language, question-answering techniques. Storage and retrieval of unstructured and well-structured data. On-line inventory systems and bibliographic search systems. (Prerequisite: CSC 459 or consent.)

**Management of Information Technology.** Information technology and resource management. Assessment of information technology trends, application of portfolio resources, managing application development and end-user computing, information resource and asset control, strategic applications, and strategic information technology planning. Diffusion theories and stage models. Case studies. (Prerequisite: CSC 475.)

**Neural Networks I.** A study of the basic structure of neural networks, activation and weights computation, learning, and various models: competition, pattern association, supervised and unsupervised learning units, single and multi-layer models, Hopfield nets, Boltzman machines, and others. Some current applications are explored.
Artificial Intelligence Programming I. Introduces the basic concepts of symbolic programming as embodied in the language LISP. Basic data and control structures of LISP: symbolic expressions, the interpreter, functions, recursions, iteration. Advanced data and control structures. Making language extensions. How symbolic programming leads to new techniques of procedural and data abstraction. (Prerequisite: CSC 480.)

Knowledge-based Systems. A detailed study of development of artificial intelligence application systems. System architecture, knowledge engineering, rule-based programming. Existing systems will be surveyed. (Prerequisite: CSC 480.)

Machine Learning. An introduction to computer systems that learn. Classification methods, decision-tree induction methods, learning concepts from examples, learning heuristics, learning by analogy, explanation-based and case-based learning. Cognitive models. (Prerequisite: CSC 583.)

Understanding Natural Language. Introduction to natural language understanding. Including representation schemes, grammars, parsins, text generation, and machine translation. An overview of some natural language processing systems. (Prerequisites: CSC 480.)

Computer Vision. An introduction to computer vision, including image representation, segmentation, stereo, color, texture perception, motion, knowledge representation, and neural nets. (Recommended: CSC 480.)

Knowledge Representation I. Techniques of symbolic knowledge representation, including logic (propositional, predicate, modal, non-monotonic), and network-based formalisms. (Prerequisite: 480.)


Knowledge Representation II. A continuation of CSC 585 Knowledge Representation. A survey of knowledge representation techniques used in various areas of artificial intelligence. (Prerequisite: CSC 585.)

Topics in Pattern Recognition. (Prerequisite: Consent of the instructor. Independent study form required.)

Advanced Topics in Algorithms. An in-depth discussion of one or more of the following topics: algorithms for integer operations, polynomial arithmetic including applications of the fast Fourier transform, matrix operations, pattern matching algorithms, proving lower bounds on the complexity of algorithms, parallel algorithms, approximation algorithms. (Prerequisite: CSC 491.)

Topics in Computer Vision. (Prerequisite: Consent of the instructor. Independent study form required.)

Topics in Telecommunications. (Prerequisite: Consent of instructor. Independent study form required.)

Topics in Artificial Intelligence. (Prerequisite: Consent of instructor. Independent Study form required.)

Topics in Graphics. (Prerequisite: Consent of the instructor. Independent study form required.)
Topics in Information Systems. (Prerequisite: Consent of instructor. Independent Study form required.)

Topics in Data Communications. (Prerequisite: Consent of instructor. Independent Study form required.)

Topics in Data Analysis. (Prerequisite: Consent of instructor. Independent Study form required.)

Topics in Computer Science. (Prerequisite: Consent of Instructor. Independent Study form required.)

Computer Science 1. An introduction to structured programming using PASCAL. Topics include: elementary data types, program control structures, character strings, array processing, procedures and functions, and an introduction to user defined data types.

Computer Science 2. Conceptual models of a computer, machine and assembly language. Internal data representation, programming methods, recursion. Basic data structures, stacks, queues, linked lists. Trees, tree searches and string processing. (Prerequisite: CSC 610.)


Teaching Computer Science. A study of different programming languages used in high schools: PASCAL, BASIC, LOGO etc. A survey of computer topics covered in high school courses. Motivation and objectives in computer education. (Prerequisite: CSC 611.)

Executive Program. A course of study designed to provide executive and management professionals with the skills required to make effective use of personal computers. The course provides an integrated format covering popular database and spreadsheet software packages as well as topics in data communication, DOS, office automation, networks, desktop publishing, and project and time management. (10 hours admission is restricted.)

Artificial Intelligence Program. A course of study for experienced programmers, this program is designed to provide an integrated approach to AI theory and technology. Topics include problem-solving methods; logic and deduction; knowledge representation; knowledge engineering; natural language processing; programming in LISP, PROLOG, and expert system shells; and applications in software engineering. (10 hours. Admission is restricted.)

Information Systems Auditing Program. A course of study designed to provide a foundation for auditors of information systems. Topics include basics of computer systems (including mainframe and PC); database concepts; operating systems (IBM, VAS/VMS, UNIX, MS-DOS); use of mainframe utilities; programming using COBOL and fourth generation languages; design and analysis of systems; a review of auditing principles and standards, including SAS 55; systems development auditing; controls in applications systems; use of auditing software; and computer security. (20 hours. Admission is restricted.)

Computer-Assisted Instruction. Study and analysis of the use of the computer as an aid in instruction. Use of CAI languages such as PILOT. (Prerequisite: CSC 630.)

Programming with LOGO. An introduction to LOGO, a powerful yet easy-to-learn language that both adults and children can use to express ideas.

Research Seminar. Readings and discussion on current research topics. Students may register for this course at most twice. (Prerequisite: Consent of the instructor.)
696 **Master's Project.** Students may register for this course only after their advisor has approved a written proposal for their project. 2 credit hours. (Prerequisite: Consent of advisor. Independent study form required.)

698 **Master's Thesis.** Students may register for this course only after their advisor has approved a written proposal for their thesis. Students must continue to register for this course every quarter after their first registration in it until they complete their project or thesis to the satisfaction of their advisor. They earn two hours of credit for each such registration but only four hours of credit will apply for degree credit. (2 hours of credit; Prerequisite: consent of advisor. Independent study form required.)

699 **Dissertation Research.** (1 to 12 hours per quarter. 12 hours total required.)

701 **Resident Candidacy Continuation.** Students admitted to candidacy for the doctoral degree who have completed all course and dissertation registration requirements and who are regularly using the facilities of the University for study and research are required to be registered each quarter of the academic year until the dissertation and final examination have been completed. Non-credit. (Prerequisite: Admission to Candidacy.)

702 **Non-Resident Candidacy Continuation.** This registration provides for doctoral candidates who have been admitted to candidacy who are not in residence and need only occasional use of University facilities, including the libraries. Non-credit. (Prerequisite: Admission to Candidacy.)

---

**COURSES FROM OTHER DEPARTMENTS**

SOC 415 **Information Systems and Society.** Consult the Department of Sociology and Anthropology Section of this bulletin for the description of this course.

ECO 512 **Applied Time Series and Forecasting.** Consult the Department of Economics Section of this bulletin for the description of this course.

**Courses Related to the MIS Degree**

All GSB courses listed below will be offered each term.

**GSB 501 Mathematical Analysis for Decision Making.** The objective of this course is to introduce the student to mathematical concepts necessary for the analysis of business problems. Topics covered are: a brief review of college algebra; differential calculus and linear algebra. (Prerequisite: Graduate Standing.)

**GSB 503 Organization Behavior: Micro Perspective.** This course will consider those aspects of psychology and social psychology that impact on the individual in his or her role as a member of a formal organization or a group therein. Specific attention will be given to the following topics: Individual Topics: Job satisfaction, personality factors, learning, socialization, organizational commitment, and evaluating and rewarding individual effectiveness; Small Group Topics: Communications, organizational change and organizational development. (Prerequisite: Graduate Standing.)

**GSB 504 Financial Accounting.** An introduction to Financial Accounting: provides both a theoretical foundation and an opportunity to apply accounting logic in increasingly complex situations. The Accounting Model and information processing cycle are developed. The content of the Income Statement, Balance Sheet, and Statement of Changes in Financial Position are studies in detail and analyzed. (Prerequisite: Graduate Standing.)
CSC

**GSB 505** Contemporary Economic Analysis. The fundamental concepts, models, and analytic tools of micro- and macroeconomics required for competent decision making are explored. Economics, and the economic problem, are defined, and the micro issues of demand and supply, elasticity, cost, pricing, and distribution are covered as one explanation of economic activity inside the firm. In the macro area, emphasis is placed on measurement of economic activity, simple models of national output, fiscal and monetary policy, and inflation and unemployment. (Prerequisite: GSB 500. 501. 502, or their equiv.)

**GSB 507** Operations Management. This course provides an introduction and overview of the field of operations management. Major problems and issues in the field are addressed. Concepts both quantitative and qualitative problem solving techniques used by operations managers are applied to both the manufacturing and services sectors. (Prerequisite: GSB 500. 501, 502 or their equiv)

**GSB 508** Marketing Management. Major marketing institutions and the processes which facilitate the flow of goods and services from production to final consumption are studied. Analysis is made of the major factors which are considered at various stages of the consumer decision process. (Prerequisite: GSB 501. 502. 505 or their equiv.)

**GSB 509** Legal Aspects of Business—Fundamentals. A Study of the legal framework within which the U.S. businessman must operate in accordance with ethical considerations and social responsibilities is combined with the study of the application of substantive rules in the basic area of contracts. The second half of the term provides a study of the applications of the rules of the more specialized business contracts, namely, real and personal property, commercial paper, sales, and the laws of the agency. Landmark decisions in each of these areas will be discussed in exemplifying the manner in which law is applied to business. (Prerequisite: Graduate Standing.)

**GSB 511** Accounting Analysis for Decision Making. The purpose of this course is to provide students with a conceptual understanding of cost and managerial accounting and with the skills for applying the knowledge to decision making. Topics include financial statement analysis, cost behavior, cost-volume-profit analysis, standard cost systems, budgeting and control and decision making. Emphasis is on the interpretation and use of accounting information rather than its creation and accumulation. (Prerequisite: GSB 501, 502, 503, 504 or equiv.)

**GSB 513** Money, Banking and Economic Activity. A study of the complex relationship between fiscal and monetary policies and the business environment within which the individual investor, financial institutions, and the financial officers of business operate. Special topics include: role of money in the economy; financial markets and financial intermediaries with emphasis on commercial banks; commercial bank asset and liability management; central banking; monetary theories and monetary policy; and international finance. (Prerequisite: GSB 501, 502, 505 or their equiv)

**ACCOUNTING**

**526** Microcomputer Uses in Decision Making. Hands-on use of microcomputers as tools for solving business problems. Students will learn to apply existing software and to construct their own worksheets. Emphasis will be on problem formulation, input preparation and solution analysis. Problems are selected from areas such as allocation of scarce resources, capital budgeting, inventory planning and control, pricing and performance evaluation. Offered Autumn, Spring. (Prerequisites: Basic Knowledge of Lotus 1-2-3, GSB 502 and either Acct. 542A or GSB 511 and permission of instructor.)
Construction and Use of Decision Models. This course covers the art of decision model construction and the application of existing decision models to managerial planning, control, and decision making. Existing models covered include linear programming and sensitivity analysis, learning curves, correlation analysis, inventory control models, PERT, and CPM. Students will learn to apply probability and utility theory to decision making under uncertainty, as well as to apply the concepts of game theory to conflict situations in a business setting. If time permits, the application of Markov processes and simulation to managerial planning and decision situations will be covered. Extensive microcomputer applications will be used in this course. Offered Variably. (Prerequisite: Completion of Phase I or equiv.)

Accounting Systems. Today's business person requires a fundamental knowledge of computer-based information systems and their role in accounting functions and financial decision making. This course will enable the student to interface with accounting systems, to participate in their design and audit, and to use microcomputers effectively in financial planning, control, and analysis. Topics include: advance data processing concepts; computer security and controls; systems analysis, design, and implementation; hardware/software evaluation and selection; data base systems; data communications; and office automation. Students will gain substantial hands-on experience on microcomputers using Lotus 1-2-3 and Lotus Symphony.

Management Consulting in the Accounting Profession. This course provides an overview of the scope and practice of management consulting and management advisory services (MAS) in the accounting profession. The process of management consulting is examined including: problem identification, proposal development, fact finding, solution analysis and implementation of recommendations. Case studies will be used in the course to demonstrate the process of management consulting in various areas. The course reviews the professional standards and ethics of management consulting practice. In addition, the course includes the marketing and engagement management aspects of management consulting. Offered: variably. (Prerequisite: Completion of Phase I or equiv.)

MANAGEMENT INFORMATION SYSTEMS

Systems Analysis and Design: Concepts, Tools and Techniques. This course is designed as the first of two courses. It focuses on the early phases of the information systems development life cycle and covers primarily process-oriented techniques, methods, and methodologies. This course prepares students for the case study-oriented MIS 676 course where learned techniques are applied. Laboratory exercises include the use of a computer-aided software engineering (CASE) tool. Offered Autumn, Winter, Summer. (Prerequisite: Completion of Phase I and MIS 670 or equiv.)

Advanced Systems Techniques. This course assumes a familiarity with basic systems techniques and tools such as data gathering, recording, and analysis, flowcharted, decision tables, system implementation, etc. Topics to be covered include systems concepts and philosophy, project management, advanced tools of systems analysis and design, the human element in systems, and the like. (Prerequisite: MIS 676 or equiv. or permission.)
Management Information Systems: Planning, Design and Implementation. The second of a two-course sequence for MIS majors. It summarizes and extends the concepts of functionally oriented, structured, and data-oriented methodologies, and CASE tools and focuses on applying them. It covers other topics of interest to the systems developers and systems manager, such as: methodologies for systems development without programmers (prototyping, 4th generation languages, end user computing), management of information services including information center concepts, and analysis and design of decision support and expert systems. Offered Winter, Spring. (Prerequisite: MIS 671 and MIS 674 or equiv.)

Information Systems Project Management. Projects are often late, over-budget, technically inoperative, operationally infeasible, and in some cases never finished. One of the roots of this problem has been the lack of experienced management. What is needed are appropriate managerial procedures of planning, scheduling and control that are responsive to the needs of the environment. This course will define the essential components of good project management. Although the emphasis will be on management of systems and data processing projects, the concepts and techniques presented will be general enough to be of value to those involved with the design and implementation of any project. Offered Winter, Summer. (Prerequisite: MIS 674 or equiv. or permission.)

Problems in Systems Design. Problems in systems design, analysis, implementation and management are presented, discussed and analyzed. The emphasis in this course is on developing an analytical ability for dealing with systems problems and a professional capability in planning and managing systems. Offered Spring. (Prerequisite: MIS 676 or equiv. or permission.)

Information Processing Management. The organization of the Information Systems Department. Staffing, documentation and performance standards. The budget process. Design and layout of data processing facilities. Hardware/software specifications and selection. (Cross-listed with CSC 483.) Offered variably. (Prerequisite: MIS 676 or equiv.)

Computers in Society. The computer has had a profound effect on individuals, organizations and society as a whole its effects have been both positive and negative. Computer-based systems are currently implemented in virtually every field of endeavor and in the future will in all likelihood have an even greater impact than they have until now. Developments within this field have occurred very rapidly over a relatively short period of time so that we must now consider the implications of this revolution on the individual, on organizations, and on society as a whole. This course will examine the historical perspective, the computer industry, implications for the individual, effects on organizational practice, privacy and the quality of life, professionalism and ethics, and future trends. Offered variably. (Prerequisite: MIS 670 or equiv.)
Security, Accuracy, and Privacy in Computer Systems. Management decisions are increasingly being made on the basis of information provided to managers by the data processing system rather than on the basis of experience and intuition alone. In order for this information to be reliable, it must be accurate and its integrity must be maintained. Data and records are vital assets to an enterprise and therefore must be guarded against unauthorized access and manipulation just as other more tangible assets are guarded. Just as data and records are important to an enterprise and therefore must be accurate and secure, so are an individual's data and records important to him/her. Therefore, the issues of privacy—who is authorized to examine an individual's records—and accuracy—the completeness and correctness of the records—are critical. The three subjects are related in their technical solutions and hence should be considered together in the planning of computer installations. Offered variably. (Prerequisite: MIS 676 or equiv.)

Decision Support Systems and Expert Systems. A seminar on the planning, design and implementation of decision support systems (DSS) and expert systems (ES). The emphasis of the course is on developing and building decision support systems. Consideration will also be given to end-user computing and the evaluation and selection of DSS generators and ES skills. Students will gain hands-on experience in using DSS generators such as IFPS, prototyping languages such as FOCUS, and expert system skills. The course will include readings, a research paper and presentations. Offered Spring. (Prerequisite: MIS 676 or equiv. or permission.)

MANAGEMENT

Topics in Production and Operations Management. This course offers a treatment of several specific production and operations management functional areas including: statistical process control, total quality control, just in time, enhanced scheduling technologies, and productivity measurement. The interrelationship of these topics is identified and applications are discussed in various manufacturing and service environments. Offered Autumn, Spring. (Prerequisite: Completion of Phase I or equiv.)

Operations Research. This course focuses on a scientific approach to problem solving and model building. Topics covered include mathematical programming, integer programming, Markov processes, game theory and simulation. Emphasis is placed on application models, computer implementation and solutions. (Prerequisite: Mgt. 501.)
FACULTY

James E. Clecka, Ph.D., Professor and Chair ........................................... Purdue University
Bala Batavia, Ph.D., Professor ............................................................... North Carolina State University
John Berdell, Ph.D., Assistant Professor ................................................ University of Cambridge
Elijah Brewer III, Ph.D., Lecturer .......................................................... Massachusetts Institute of Technology
Frank J. Brown, Ph.D., Professor Emeritus .............................................. Catholic University of America
Gabriella Bucci, Ph.D., Assistant Professor ............................................. The Johns Hopkins University
Jin Choi, Ph.D., Assistant Professor ....................................................... Iowa State University
James J. Diamond, Ph.D., Professor Emeritus ........................................ Northwestern University
Floyd R. Dill, Ph.D., Assistant Professor ................................................ Cornell University
Thomas Donley, M.A., M.S., Instructor ................................................ University of Illinois, University of Wisconsin
William Dugger, Ph.D., Professor ........................................................ University of Texas
Seth Epstein, Ph.D., Visiting Professor .................................................... University of Arizona
Douglas Evanoff, Ph.D., Lecturer ............................................................ Southern Illinois University
Animesh Ghoshal, Ph.D., Professor ........................................................ University of Michigan
Donald Hanson, Ph.D., Lecturer ............................................................. University of Illinois
William A. Hayes, Ph.D., Professor Emeritus ......................................... Catholic University of America
Peter Heffernan, Ph.D., Lecturer ............................................................. The Ohio State University
Anthony C. Krautmann, Ph.D., Associate Professor ............................... University of Iowa
Adolph E. Mark, Ph.D., Professor Emeritus ........................................... University of Illinois
Michael S. Miller, Ph.D., Associate Professor ....................................... University of Pittsburgh
Thomas Mondschean, Ph.D., Assistant Professor ................................... University of Wisconsin
Margaret A. Oppenheimer, Ph.D., Associate Professor ............................ Northwestern University
Laura Owen, Ph.D., Assistant Professor ................................................ Yale University
Bruce Phelps, Ph.D., Lecturer ............................................................... Yale University
Sherrie Rhine, Ph.D., Lecturer .............................................................. University of South Carolina
William Sander III, Ph.D., Professor ..................................................... Cornell University
Richard M. Thornton, Ph.D., Professor Emeritus ................................... Northern Illinois University
William R. Waters, Ph.D., Professor Emeritus ....................................... Georgetown University
Richard J. Wiltgen, Ph.D., Professor ..................................................... University of Illinois

PURPOSES

The degree in economics prepares the graduate, as a professional economist, to teach economics in high school and college, and to work as a business or a government economist forecasting and performing other tasks associated with that profession.

PROGRAMS

Master of Arts: Economics

The graduate program is theoretical and analytical. Economic analysis is used to explain and understand our economy and international economic developments. The program provides wide acquaintance with the basic sources in the field and initiates the student to habits of economic research.
MASTER OF ARTS: ECONOMICS
Admission Requirements

For full admission, students must have the following:
Bachelor's Degree.
Nine courses in the social sciences. At least five of these courses are to be economics or finance. The economics courses are to include ECO 305 Pricing and Distribution Analysis, ECO 306 National Income Analysis, and ECO 342 Statistics for Economists, or equivalent. The remaining courses may be in political science, sociology, psychology, statistics, history, or geography. Often the number of required courses is reduced when the analytic background and the maturity of the student are taken into consideration.

Degree Requirements

The candidate for the Master's Degree in Economics may choose either the thesis or non-thesis option.

Thesis

Courses: Eleven (44 quarter hours)
Core Courses: Five (20 quarter hours)

- **ECO 375** Introduction to Econometrics or equivalent
- **ECO 505** Advanced Microeconomics
- **ECO 506** Advanced Macroeconomics
- **ECO 530** History of Economic Thought
- **ECO 580** Topics in Quantitative Economics OR
- **ECO 599** Seminar in Economics

Thesis Research ECO 600 Thesis Research (8 quarter hours)

Additional Courses: Four (16 quarter hours) The additional courses, to be chosen from economics and/or allied fields, require the student to have the written permission of the Program Coordinator or the Department Chair. Two of the four additional courses must be chosen from the 500 levels.

Thesis: The student must seek the approval of a faculty member in the department to write the thesis under his/her direction. Essential to this approval is acceptance of the thesis topic by the professor. If the thesis is evaluated as "excellent" and the student's grade point is above average, the chairperson may dispense with the oral examination requirement that follows.

Oral Comprehensive Examination: This examination covers the thesis and the Area of Economics Concentration of the thesis. The examination is taken after submission of the approved final draft of the thesis.

Non-Thesis

Courses: Eleven (44 quarter hours)
Core Courses: Five (20 quarter hours)

- **ECO 375** Introduction to Econometrics I or equivalent
- **ECO 505** Advanced Microeconomics
- **ECO 506** Advanced Macroeconomics
- **ECO 530** History of Economic Thought
- **ECO 580** Topics in Quantitative Economics OR
- **ECO 599** Seminar in Economics
Additional Courses: Six (24 quarter hours) The additional courses, to be chosen from economics and/or allied fields, require the student to have the written permission of the Program Coordinator or the Department Chair. Four of the six additional courses must be chosen from the 500 levels.

Written Comprehensive Examination: The comprehensive examination includes questions from the core courses (ECO 505, 506, 530, and 580 or 599) and two courses chosen by the student with the approval of the Chair or student’s advisor.

The examinations are usually given in the second weeks of December and June. Students interested in taking the exam must pick up a copy of the rules regulating the exams from the Department secretary or administrative assistant. Students who wish to take the exam must file an application with the Economics Department no later than six weeks prior to sitting for the exam.

Note: GSB Courses, ECO 509, ECO 511 and ECO 556 cannot be used to fulfill degree requirements for M.A. students in economics.

Economics as a Minor Field

Economics may be combined as a minor field only with those departments whose chair permits such a minor. The undergraduate prerequisites for taking graduate-level economics courses are eight courses in the social sciences. Six of these must be in economics or finance; the remaining two courses may be in political science, sociology, history, or geography.

Courses

All courses carry four quarter hours of credit unless otherwise noted.

ADVANCED UNDERGRADUATE COURSES

320   Economics and the Common Good. Economic theories, systems, and problems will be studied and analyzed in reference to the economic common good as defined in key modern documents, particularly the social encyclicals. Stress will be placed on both theory and practice.

325   The Economics of Poverty. Material and cultural, absolute and relative forms of poverty will be investigated insofar as they derive systematically, directly, and indirectly, from the American economy. Taking elimination of poverty as an appropriate objective, existing private, institutional and governmental activities will be analyzed, including economic activity itself. Personal, social, demographic, technological, and political background factors will also be brought to bear in the consideration of more successful antipoverty economic programs and policy.

330   The Economics of Socialism (formerly 230). Fundamental economic relationships as they exist under socialist forms of organization. The pure theory of socialism is examined, as well as the practical organization of the economies in the various socialist nations. (Prerequisite: 104.)
335 **Resource, Energy, and Environmental Economics.** Introduction to the fundamental problems of resource depletion and environmental deterioration; trade-offs between the use of natural resources, environmental pollution, and population growth; alternative methods to achieve an optimal ecological system. Economic analysis of cost-benefit techniques, the role of effluent fees, government subsidies, and legislative action.

360 **Economics of Underdeveloped Countries.** Application of the analytic skills of the economist to the special problems of underdeveloped countries. The view that development requires authoritarian control by the state is contrasted with the position that it may be accomplished by private economic decision-making.

361 **International Trade.** A study of international trade theory and policy. It examines the fundamental basis for trade and the question of equilibrium and disequilibrium in the world economy. It includes analyses of the Balance of Payments, international investment flows, and the position of the dollar in foreign exchange transactions. Modern international institutions are studied.

368 **Industrial and Commercial Location.** Analysis of the factors involved in selecting locations for the development of commercial and industrial facilities. (Cross-listed with GEO 368 and MKT 368.)

375 **Introduction to Econometrics.** This course introduces the student to the application of statistical methods to empirical testing of theoretical models of economic behavior. It proceeds from a discussion of mathematical models to probability theory and the methodology of statistical inference relevant to econometric work. Simple and multiple regression and correlation analysis will be emphasized along with a brief consideration of some problems raised by these methods of estimation.

380 **Mathematics for Economics and Business I.** This and Economics 581 are designed to provide a basic competency in the use of mathematics in Economics and Business. More and more, traditional as well as new concepts are discussed in the language of mathematics. In addition, successful study in the area of quantitative methods is greatly facilitated if the student has prior knowledge of the required mathematical tools. This first course consists of a general and elementary survey of three areas: the nature of a mathematical model, matrix algebra, and an introduction to calculus. All tools will be developed within the framework of problems common to Economics and Business. The student is assumed to have only a high school background.

**GRADUATE COURSES**

505 **Advanced Microeconomics.** (Prerequisite: Graduate Standing) An advanced course in micro-economic theory. Extensive reading in the field is required and recent developments are examined. Emphasis is on those modern contributions which have made economic theory more realistic and applicable to the world of business.

506 **Advanced Macroeconomics.** (Prerequisite: Graduate Standing) An advanced course in macroeconomic theory that examines the determination of income, employment, and prices, and their interrelations. Covers traditional Keynesian as well as alternative models of output, consumption, investment, money demand, inflation, and unemployment. The dynamic character of income determination is emphasized, along with the effects of government policy, economic institutions, and social goals.
Business Conditions Analysis. (Prerequisite: Graduate standing.) Examines the economist's measurement, analysis, and forecasts of the economy and relates various macroeconomic topics to the needs of the business sector. Topics include: economic methodology and method; measures of macroeconomic activity; models of output consumption, investment, and government behavior; business cycles; international economic relations; and macroeconomic forecasting. (Cannot be used to fulfill degree requirements for M.A. students in economics.)

Business and Economic Forecasting. (Prerequisite: Graduate Standing.) This course surveys a number of quantitative techniques commonly used to forecast business and economic variables. Emphasis will be on the techniques, their relative strengths and weaknesses, and real-world economic applications. Topics include smoothing techniques, regression and econometric analysis, and Box-Jenkins time series. (Cannot be used to fulfill degree requirements for M.A. students in economics.)

Applied Time Series and Forecasting. (Prerequisite: Graduate Standing.) Theory and computer implementation of the Box-Jenkins techniques with emphasis on forecasting business and economic activity. (Cross-listed with MAT 512.)

Industrial Organization. (Prerequisite: Graduate Standing) This course is concerned with how the market system directs production decisions under varying deviations from the competitive environment. The links between market structure, conduct, and performance are examined. Topics include determinants of market structure, various theories of imperfect competition, price discrimination, predatory pricing, and antitrust policy.

Business and Public Policy. (Prerequisite: Graduate Standing.) Critical examination of the roles of government in business. A sketch of the historical relationship of government and business and the options open to the American people of different kinds of social control systems.

Public Economics and the Economics of Taxation. (Prerequisite: Graduate Standing.) Application of microeconomic analysis to the role of the government in society. The theoretical foundation for the design of an efficient and equitable tax and expenditure program is presented and the impacts of such a program on the economy is explored through general equilibrium analysis. Students must have a solid grounding in basic calculus.

Labor Economics and Labor Relations. (Prerequisite: Graduate Standing) A study of the American labor force; measurement, characteristics, behavior under changing income, employment, and technology. An examination of recent trends in real and money earnings and the distribution of the national income provides the basis for a critical economic analysis and appraisal of contemporary wage theory.

History of Economic Thought. (Prerequisite: Graduate Standing) A study of the evolution of the science of economics. Emphasis is on the important contributions made to the field by the great thinkers, starting with the Physiocrats and extending to the work of contemporary institutional and Post-Keynesian economists.

Comparative Economic Systems. (Prerequisite: Graduate Standing) A study of the theory and practice of modern economic systems. Attention will be devoted to the United States, the Soviet Union and other major nations.
Regional and Urban Economics. (Prerequisite: Graduate Standing) This course investigates the spatial character of an economic system. The first part of the course is concerned with theories in regional economics, including business and household location theory, urbanization, and regional development. The latter part of the course deals with urban economics, a specialized area concerned with the economic forces behind many urban problems. Topics include the economics of housing, transportation, poverty, crime, and urban public finance.

The Global Economy. (Prerequisite: Graduate Standing) This course is designed to be an introduction to the economic environment in which international business operates. With the increasing interdependence of the global economy and the growing role of multinational enterprise, an understanding of international economic integration is vital to decision makers. The material covered will include both economic and financial aspects and cultural aspects of international business. (Cannot be used to fulfill degree requirements for M.A. students in economics.)

International Economics. (Prerequisite: Graduate Standing; ECO 361 or equivalent) Modern theories of international trade: Classical theory of comparative advantage, factor proportion of theory, factor price equalization, application to international trade of welfare economics, including regional economic integration, commercial policy and tariff problems.

Development of the American Economy. (Prerequisite: Graduate Standing) This course describes the economic development of the United States by tracing the effects of the significant innovations. Consideration is divided among the various American metropolitan economies.

Economics of Underdeveloped Countries. (Prerequisite: Graduate Standing) An introduction to the analytic skills of the economist applied to the special problems of underdeveloped countries. The following topics are covered: the economic theory of development; development policy; and decision making in the developing world. In addition several case studies are examined.

Econometric Methods. (Prerequisite: ECO 375) The various fundamental problems in the application of statistical procedures to econometric estimation will be studied: multicollinearity, identification, serial correlation, and nonhomogeneity of error variance. In addition, more sophisticated estimation techniques will be studied, e.g., reduced form and multi-stage regression techniques.

Topics in Quantitative Economics. (Prerequisites: Graduate Standing, ECO 305 or GSB 512, and ECO 380 or equivalent) This course is designed to expose students to the applications of quantitative and mathematical economics. Exact topics will be chosen by the instructor.

Mathematics for Economics and Business II. (Prerequisites: Graduate Standing and ECO 380) This course is a continuation of ECO 380. Areas of concentration will include: a survey of the relevant concepts of both differential and integral calculus, differential equations, difference equations, and the mathematics of statistical inference.

Seminar in Economics. (Prerequisite: Graduate Standing.) The course content depends upon the choice of the instructor. In recent years, the material chosen was literature explaining the nature of the science of economics, including the competing paradigms of the Austrian School, Schumpeter, solidarism, Max Weber, Institutionalism, and Post-Keynesianism.

Thesis Research. (Prerequisite: Permission of the Department Chair.) The student writing his thesis for the Master of Arts degree must register for this course. He will pursue his research under the direction and guidance of the graduate faculty. Eight quarter hours of credit is given upon the successful completion of the thesis.
ECO

**Candidacy Continuation.** Required of all students who are not registered for regular courses but who occasionally utilize University facilities during completion of course requirements and/or research. Non-credit. $40.00 per quarter.

**Special Topics.** (Prerequisite: As indicated in class schedule.) Content and format of this course are variable. An in-depth study of current issues in economics. Subject matter will be indicated in class schedule.

**Independent Study.** (Prerequisite: Written permission of supervising faculty member and Chair is required prior to registration.) Available to graduate students of demonstrated capability for intensive independent work in economics.

Courses cross-listed with CDG (not available for M.A. students in economics.)

**The U.S. Macroeconomy and Chicago.** Profile of Chicago's economy, with emphasis on its development and current structure and contemporary links to international trade. The course will present principles of economics in terms of the Chicago economy and the national economy.

**Introduction to Economics.** (Cross-listed with CDG 417.) A basic survey for educators who have not studied college-level economics. The course explains ways to introduce major economic concepts into the curriculum at all grade levels.

**Teaching Economics in U.S. History.** (Cross-listed with CDG 429.) The use of economic concepts to interpret and analyze American history. The course traces the development of the United States economy and provides models for introducing economic development into junior and senior high school courses.

**Teaching Consumer Education.** (Cross-listed with CDG 430.) An approach to consumer education that provides a basis for interpreting consumer choices as part of a larger system: the urban economy and the American economy. The course uses the Chicago area sites as well as current consumer education resources to deal with consumer economics issues. Meets the certification requirements for teachers of consumer economics in Illinois.

**Teaching the American Economic System.** (Cross-listed with CDG 431.) The course explains basic economic concepts and provides tools of analysis that teachers can use to give students a clear understanding of the American economy and contemporary economic problems.

**Implementing Economic Education Programs.** (Cross-listed with Education 434.) This course deals with the practical issues that affect the successful introduction of economic education in an ongoing program. Participants will consider specific materials and methods for teaching economics and will identify the approaches that are most appropriate for different educational situations.

**Teaching Money and Banking.** (Cross-listed with CDG 435.) This course explains the financial system in the United States and considers essential concepts of inflation, credit creation, monetary policy, and investment. By using Chicago area financial institutions to focus on economic concepts, the course prepares educators to teach money and banking to junior high school students, high school students, and adults.

**Integrating International Trade in the Curriculum.** This course will combine curricular principles with the presentation of models for incorporating international trade in courses in economics, geography, political science, and urban science.
440 Social Economic Development. An examination of theories of economic development, including the role of the market, the enterprise system, and economic intermediaries. By considering the implications of major economic theories for Chicago's economic development, the course will prepare educators not only to teach about economic development but also to link those theories to the Chicago community.

441 Introduction to American Economic Development. (Cross-listed with CDG 441.) The course will trace the economic development of the United States with an emphasis on the Midwest in the 19th century. Focusing on the impact of innovation and the role of the city, the course will provide a framework for teaching Chicago's economic development.

442 Introduction to Business and Public Policy. (Cross-listed with CDG 442.) A history of government and business relations that emphasizes major issues that have affected the American economy, including property rights, labor, and welfare. The course will compare different kinds of economies: the market system with laissez faire; the market system with antitrust; administrative regulation; socialism.

443 Teaching Economics: Applied Basic Concepts. (Cross-listed with CDG 443.) This course will involve educators in economic education through actual instruction. As concepts are presented in the course, the participants will teach those concepts themselves to their students, using materials and methods organized for this course.

444 Chicago's Current and Future Economy. (Cross-listed with CDG 444.) Beginning with a survey of Chicago's development in the 19th century, the course examines contemporary Chicago and considers patterns and predictions of future development. By emphasizing the concepts of economic development and the trends in technology and human capital, the course provides a basis for interpreting Chicago's current economy and planning for its future.

445 Integrating Economics in the High School Curriculum. (Cross-listed with CDG 445.) The course presents a system for planning the integration of economic education in Chicago area high school curricula. The course will provide models for introducing economic development concepts into the curriculum in social studies, English, math, and other subject areas. Participants also will consider the organizational requirements for curricular innovation.

456 The Global Economy and the Chicago Economy. An introduction to international economics with a focus on the role of Chicago in the world economy. The course will deal with economic and financial aspects of international business and the impact of conditions and shifts in the international economy on Chicago's economy.
FACULTY

Gerald P. Mulderig, Ph.D., Associate Professor and Chair. The Ohio State University
Theodore G. Anton, M.A., M.F.A., Assistant Professor. University of Iowa
Darsie Bowden, Ph.D., Assistant Professor. University of Southern California
Bernard A. Brunner, Ph.D., Professor. University of Chicago
Caryn Chaden, Ph.D., Assistant Professor. University of Virginia
Carol Klimick Cyganowski, Ph.D., Associate Professor. University of Chicago
Stanley J. Damberger, M.A., Associate Professor. Saint Louis University
William Fahrenbach, Ph.D., Assistant Professor and Director.

Graduate Program in English. University of Toronto
James Fairhall, Ph.D., Assistant Professor. State University of New York at Stony Brook
William J. Feeney, Ph.D., Professor Emeritus. University of Oregon
Kristine Garrigan, Ph.D., Professor. University of Wisconsin
Hugh J. Ingrasci, Ph.D., Associate Professor. University of Michigan
Richard Jones, M.A., M.F.A., Associate Professor. University of Virginia.

Ellin M. Kelly, Ph.D., Professor Emeritus. University of Wisconsin
Veronica Kelly, Ph.D., Assistant Professor. Cornell University
Helen Marlborough, Ph.D., Assistant Professor. Brown University
Zahava McKeon, Ph.D., Professor Emeritus. University of Chicago
Margaret M. Neville, Ph.D., Professor Emeritus. Loyola University
John E. Price, Ph.D., Associate Professor. Loyola University
Lavon Rasco, Ph.D., Professor Emeritus. Northwestern University
Frank Sherman, Ph.D., Professor Emeritus. University of California, Berkeley
Craig A. Sirles, Ph.D., Assistant Professor. Northwestern University
Gary Smith, Ph.D., Associate Professor. Stanford University

PURPOSES

The purposes of the graduate program in English are to provide knowledge of English and American language and literature; to foster scholarly habits in bibliography, literary and cultural history, literary criticism, and the study of language; to cultivate independent critical ability, that is, the ability to read literary texts flexibly and comprehensively.

PROGRAMS

Master of Arts: English

The Master of Arts program in English achieves its purposes through graduate courses in different periods of English and American literature, as well as electives in English and American literature, writing and linguistics, literary criticism, and special studies. The program also involves a written Master's Examination at the end of the student's course work, as well as options for independent study and thesis research.
MASTER OF ARTS: ENGLISH

Admission Requirements

For full admission, students must have a bachelor's degree in English or the equivalent, or a bachelor's degree in another major with clear evidence of the ability to succeed in an advanced program in English and American language and literature.

In addition to the application for admission and undergraduate transcripts, students should submit a personal statement, from 300 to 500 words long, describing their special interests in English and American literature, and their plans for the future, including their immediate goals in applying to DePaul's M.A. in English. Students who have not done a B.A. in English are also encouraged to describe the strengths and weaknesses in their preparation for graduate work in English.

Degree Requirements

A) 48 hours of graduate credit in English

B) Achievement of candidacy: A 3.0 average in four courses completed within two years of admission. Two of these courses must be ENG 400: Bibliography and Literary Research and ENG 470: Studies in Literary Criticism. Failure to meet these candidacy requirements will result in dismissal.

C) Completion of three core courses:
   - ENG 400 Bibliography and Literary Research
   - ENG 401 History of the English Language
   - ENG 470 Studies in Literary Criticism

D) Six courses in literature, one each from these sections: Medieval, Renaissance, Restoration and Eighteenth Century, Nineteenth Century, Modern, and American Literature.

NOTE: Students may take no more than three literature courses in any one of the areas listed under d) above.

E) Three electives drawn from English and American period courses, Writing and Language, Literary Criticism, Special Studies, Independent Study (maximum of four hours), or Thesis Research (maximum of four hours; available for students exercising the Thesis Option.)

F) A passing grade on a written Master's examination, based on a reading list drawn up by a department committee. The reading list is posted in January, six months before the examination in July. A student is eligible to write the examination only after he or she has completed all other degree requirements. If a student does not pass the examination, the department may recommend that the Dean grant permission for the student to write another examination at the next regular time. The examination may not be taken more than twice.

Note: Under special circumstances and with the Director's approval, students may take a limited number of advanced undergraduate courses for graduate credit.

Thesis Option

A Thesis Option is available to students who have a promising idea for a scholarly or creative project. Proposals must earn the approval of an English Department graduate faculty member, who will serve as project director. Credit is earned through ENG 499 Thesis Research.
Certification For High-School (6-12) Teaching

DePaul University School of Education offers approved programs for State of Illinois certification in 6-12 teaching. Students who complete the requirements listed above for the Master of Arts in English may also obtain certification by satisfying the following additional requirements:

1. Courses:
   a. School of Education: CUG 400, 403, 408, R&L 446, CDG 405, 525, and 590 (student teaching).
   b. English: ENG 480 or 481

2. Other requirements:
   a. Specific courses in general education (such as science or U.S. history) if not taken as an undergraduate.
   b. Basic skills and subject-matter tests.
   c. Field experiences.

Students in this program must apply to and have an advisor in the School of Education.

Courses

Courses carry four hours of credit unless otherwise noted.

Writing and Language

400 Bibliography and Literary Research. A general course for the guidance of students in methods of literary research.

401 History of the English Language. A systematic study of the nature, history, and usage of the English language. The course traces the language from its origin to its present status in England and America.

402 History of English Prose Style. A survey of alternative theoretical approaches to the study of style, followed by intensive study of changes in the conventions of English prose from the Renaissance to the present.

405 Composition Theory. Explores the development of contemporary theories of written composition; focuses on contexts for writing, the writing process, and reader-writer relationships.

406 The Classical Tradition in Rhetoric. A survey of Greek and Roman rhetorical theory. The course examines important definitions and discussions of rhetoric from Plato to Augustine, focusing on their implications for an understanding of the roles of rhetoric and writing in society today.


408 Stylistics. Theory and practice in examining features of prose style; linguistic, rhetorical, and literary perspectives on style.

409 Topics in Writing. See schedule for current offering.

490 Writing for Magazines. Covers the range of skills necessary for magazine writing. Discussion of the elements of style, humor, research, concept, and imagery that characterize the literature of fact. Students investigate, compose, and edit finished magazine articles to be submitted for publication.
491 **Science Writing.** An introduction to the forms of current science writing, from technical descriptions to highly crafted magazine pieces. Students develop a final project that may be marketed to magazines or journals.

492 **Writing Fiction.** A course in writing short stories. Emphasis is placed on class discussion of student writing. Prerequisite: previous creative writing experience and permission of instructor.

493 **Writing Poetry.** A course in writing and reading poetry. Emphasis is placed on class discussion of student writing. Prerequisite: previous creative writing experience and permission of instructor.

494 **Writing in the Professions.** Improves writing skills useful in semi- and nontechnical professions; emphasis on style, tone, awareness of purpose and audience; effective memo, proposal, and report writing.

495 **Technical Writing.** An advanced course in the issues, forms, and strategies of technical writing. Emphasizes audience analysis, organization, clarity and appropriateness of style, and document design. Offers experience in current computer applications in technical writing, including advanced word processing, computer graphics, desktop publishing, and professional editing and readability software.

496 **Editing.** An introduction to editing principles and practices in professional and technical fields.

**Medieval**

411 **Chaucer.** Chaucer's works in context of his milieu.

412 **Studies in Arthurian Literature.** Geoffrey of Monmouth, Wace, Layamon, and Malory.

413 **Studies in Medieval Literary Forms.** Alternating emphasis on poetic, narrative, and dramatic genres of the 14th and 15th centuries.

419 **Topics in Medieval Literature.** See schedule for current offering.

**Renaissance**

421 **Studies in English Renaissance Prose.** Major prose works, including More's *Utopia*, Sidney's *Apology for Poetry*, Bacon's *Essays*, and Milton's *Areopagitica*.

422 **Studies in English Renaissance Poetry.** Alternating emphasis on the English epic, the 16th-century lyric, and the 17th-century lyric.

423 **Studies in English Renaissance Drama.** Tudor-Stuart drama, including works by Kyd, Marlowe, Jonson, Webster, and Ford.

427 **Milton.** Milton's poetic works in their historical context.

428 **Studies in Shakespeare.** Study of selected plays through various critical and scholarly perspectives.

429 **Topics in Renaissance Literature.** See schedule for current offering.

**Restoration and Eighteenth Century**


432 **Studies in Restoration and Eighteenth-Century Drama.** Studies in the comedy of manners, sentimental comedy, heroic drama, and bourgeois tragedy.

434 **Studies in Restoration and Eighteenth-Century Authors.** Alternating emphasis on, for example, Dryden, Pope, Swift, Johnson, or other authors.

439 **Topics in Restoration and Eighteenth-Century Literature.** See schedule for current offerings.
Nineteenth-Century British


444 Studies in Victorian Poetry. Major Victorian poets, including Tennyson, Browning, and Arnold.

445 Studies in Nineteenth-Century British Fiction. Alternating emphasis on major novelists including Dickens, Thackeray, the Brontës, Eliot, Trollope, and Hardy.

449 Nineteenth-Century Topics. See schedule for current offering.

Modern British

451 Studies in the Modern British Novel. Alternating areas of emphasis, including Woolf, Joyce, Lawrence, and Huxley.

452 Studies in Modern British Poetry. Alternating areas of emphasis, including Yeats, Auden, Lawrence, Dylan Thomas, and Hopkins.

453 Studies in Modern British Drama. Representative British and Irish plays from World War I to contemporary times.

459 Topics in Modern British Literature. See schedule for current offering.

American Literature

464 Studies in American Authors. Alternating emphases on major writers, including Hawthorne, Melville, Poe, Whitman, Dickinson, Twain, Chopin, Crane, James, Wharton, and Cather.


467 Studies in American Drama. American dramatists and dramatic movements.

469 Topics in American Literature. See schedule for current offering.

Literary Criticism

470 Studies in Literary Criticism. Study of the theoretical foundations of literary criticism, exemplified by major texts from ancient Greece to the present.

479 Topics in Literary Criticism. See schedule for current offering.

Special Studies

480 Teaching Writing. Prepares English teachers to teach composition at the secondary and college undergraduate levels. The course develops methods of teaching composition based on contemporary theories of rhetoric, acquisition of language skills, and reading.

481 Teaching Literature. Prepares English teachers to teach literature at the secondary and college undergraduate levels. The course develops methods of teaching all literary genres, addresses problems in literacy, and focuses on the transactional nature of reading and writing.
484 Studies in Literature. See schedule for current offering.
487 Studies in Drama. Comparative studies in English, Continental, and American dramatic literature.
489 Topics in Comparative Literature. See schedule for current offering.
498 Independent Study. Written permission of supervising faculty member and of the program director is necessary before registration. Variable credit.
499 Thesis Research. Written permission of supervising faculty member and of the program director is necessary before registration. Limited to four credits.
502 Candidacy Continuation. Required of all students who are not registered for regular courses but who occasionally utilize University facilities during completion of course requirements and/or research. Non-credit. $40.00 per quarter.
FACULTY
James P. Krokar, Ph.D., Associate Professor and Chair .......................... Indiana University
Donald J. Abramske, Ph.D., Professor Emeritus ................................. University of Chicago
Thomas Croak, C.M., S.T.D., Ph.D., Assistant Professor ................. Carnegie-Mellon University
Lillie J. Edwards, Ph.D., Associate Professor ................................. University of Chicago
Albert Erlebacher, Ph.D., Professor .............................................. University of Wisconsin, Madison
Ellen T. Eslinger, Ph.D., Assistant Professor ..................................... University of Chicago
Bruce L. Fenner, Ph.D., Associate Professor ................................... Cornell University
Robert F. Fries, Ph.D., Professor Emeritus ....................................... University of Wisconsin, Madison
Robert Garfield, Ph.D., Associate Professor ..................................... Northwestern University
Rosemary D. Gooden, Ph.D., Assistant Professor ................................. University of Michigan
Douglas R. Howland, Ph.D., Assistant Professor ............................... University of Chicago
Gregory C. Kozlowski, Ph.D., Professor ........................................ University of Minnesota
Howard O. Lindsey, M.A., Instructor ............................................... University of Michigan
Felix Masud-Piloto, Ph.D., Assistant Professor .................................. Florida State University
Richard J. Meister, Ph.D., Professor ............................................... Notre Dame University
Thomas R. Mockaitis, Ph.D., Assistant Professor ............................... University of Wisconsin, Madison
Susan Ramirez, Ph.D., Professor .................................................. University of Wisconsin, Madison
Barbara Ransby, M.A., Instructor .................................................. University of Michigan
Ben Richardson, B.A., S.T.B., Professor Emeritus .............................. Harvard University
Karen Scott, Ph.D., Assistant Professor ........................................ University of California, Berkeley
Cornelius Sippel, Ph.D., Associate Professor ................................... University of Michigan
Arthur W. Thurner, Ph.D., Professor Emeritus .................................. University of Chicago

PURPOSES
The degree program is intended to prepare the student for further advanced study, as well as to give him or her a disciplinary background adequate for those professions, in which a master's degree is ordinarily considered adequate, such as secondary school teaching and archival work.

PROGRAMS
Master of Arts: History
The purpose of all courses offered by the Department of History is to provide a broad and critical acquaintance with the past experience of human society. Graduate courses involve wide contact with historical literature, including source materials; some practice in collecting, interpreting, and presenting data according to acceptable standards of method and style; and intensive discussion of the nature and problems of the discipline.
MASTER OF ARTS: HISTORY
Admission Requirements

For full admission, students must have the following:
1) Bachelor’s degree: 48 quarter hours in the social sciences. At least 36 of the hours must be in history and include both European and United States History. Remaining 12 hours are to be in other fields of the social sciences. 2) Two letters of recommendation. 3) A one- to two-page personal statement explaining their reason(s) for studying history in graduate school.

Note: In special cases the Department may accept applicants who have not completed the minimum number of credit hours in history or the social sciences.

Degree Requirements

Thesis

Courses: minimum of 48 quarter hours, including

- **HST 401** Historical Method and Bibliography
- **HST 499** Thesis Research
- **HST 500** Candidacy Continuation. Required of all students who are not registered for regular courses but who occasionally utilize University facilities during completion of course requirements and/or research. $40.00 per quarter.

Four 400-level history courses

Six 300-level history courses, including

- one in American (if not previously taken in undergraduate program)
- one in European (if not previously taken in undergraduate program)
- one in Latin America
- one in East Asia
- one in Islam
- one in Africa

Note: In an exceptional case a 300-level course may be substituted for a 400-level course in the same field with the written consent of the student’s advisor and the chairperson.

Reading knowledge of one foreign language, preferably French, German or Spanish. The department will accept as evidence of reading knowledge of a foreign language 18 quarter hours (12 semester hours) of college study successfully completed (i.e., a grade of C or above), or four years of high school study. Students who have earned less than 18 quarter hours or the equivalent in the study of a single foreign language must have evidence of reading knowledge by passing an examination set by the department. Examinations are available only in languages taught at the University.

Written or Oral Comprehensive Examination: Type to be chosen by student. Examination covers two of the following fields of history:

- African
- Asian
- Medieval Europe 400-1500
- Modern Europe to 1850
- Modern Europe since 1850
- England to 1750
- Great Britain since 1700
- Islamic
- Latin America
- United States to 1860
- United States since 1860
Non-Thesis

Courses: minimum of 48 quarter hours, including

**HST 401** Historical Method and Bibliography

Five 400-level courses

Six 300-level history courses, including one in American (if not previously taken in undergraduate program), one in European (if not previously taken in undergraduate program), one in Latin America, one in East Asia, one in Islam, one in Africa.

Note: In an exceptional case a 300-level course may be substituted for a 400-level course in the same field with the written consent of the student's advisor and the chairperson.

Written or Oral Comprehensive Examination: Type to be chosen by student. Examination covers two of the following fields of history:

- African
- Asian
- Medieval Europe 400-1500
- Modern Europe to 1850
- Modern Europe since 1850
- England to 1750
- Great Britain since 1700
- Islamic
- Latin America
- United States to 1860
- United States since 1860

History as a Minor Field

History may be combined as a minor with Education, English, Economics, Geography, and Philosophy. The prerequisites in history are 24 quarter hours, of which at least four must be in United States and four in European history.

Students who wish to obtain certification for secondary school teaching, must also take the following education courses.

Certification For High School (6-12) Teaching

DePaul University School of Education offers approved programs for State of Illinois certification in 6-12 teaching. Students who complete the requirements for the Master of Arts in History listed above may also obtain certification by satisfying the following additional requirements:

1. Courses:
   a. School of Education: CUG 400, 403, 408, R&L 446, CDG 405, 525, and 590 (student teaching).
   b. HST 393

2. Other requirements:
   a. Specific courses in general education (such as science or U.S. history) if not taken as an undergraduate.
   b. Basic skills and subject matter tests.
   c. Field experiences.

Students in this program must apply to and have an advisor in the School of Education.
Courses

All courses carry four quarter hours of credit unless otherwise noted.

Advanced Undergraduate Courses

**European**

315 **Medieval People and Institutions.** An introduction to the varied political, economic, social, and religious realities and developments which shaped the lives of Medieval men and women.

316 **God, Self, and Society in Medieval Culture.** The roots of Western thought in Medieval education, literature, philosophy, and science. The interactions between high theology, mysticism, and popular culture. History and autobiography.

317 **Individual and Society in Renaissance Italy.** The flowering of culture, humanism, and the arts in fourteenth and fifteenth century Italy. Renaissance politics, patronage, and diplomacy. Religion and the Papacy.

318 **The Age of Reformsations.** Late Medieval religion and society; the Reformations of Luther and Calvin, and the Catholic reform movements. Nationalism and the state in sixteenth-century Europe. The expanding world.

319 **The Ancient Regime.** Early modern European history in the seventeenth and eighteenth centuries. Absolute monarchies and enlightened despotisms. The bourgeoisie, and rural life. The Enlightenment.

326 **England to 1688.** The origins and development of English political and social institutions in the medieval and early modern periods.

327 **Modern Britain Since 1688.** The continued development of political and social institutions, the growth of industrial civilization, the experience of empire, post-imperial Britain in a European and world context.

328 **English Constitutional History.** A study of Anglo-Saxon institutions; feudalism after the Norman conquest; growth of the common law; foundations of Parliament and the development of central administrative systems.

332 **French Revolution and Napoleon.** Political and economic failure of the Old Regime, influence of the philosophers, the rise and fall of revolutionary idealism, the spread of revolutionary principles, the development of imperialism and dictatorship under Napoleon, the settlement of Europe and the Congress of Vienna.

336 **Expansion of Europe I: The Age of Discovery.** A survey of the political, intellectual and scientific roots of the expansion of Europe and of the main voyages of discovery between 1400 and 1825.

337 **Expansion of Europe II: The Age of Empires.** Causes of the establishment of European empires in the 19th and 20th centuries, the nature and effect of empires, the reasons for their disappearance and their legacy for Europe and the non-Western world.

347 **Europe from Vienna to Versailles.** The development of the modern nation-state, the growth of industrial society and culture, the advent of European ascendency.

348 **Europe in the Twentieth Century.** The crisis of democracy and culture, the decline of European ascendancy, the growth of pan-Europeanism.
Russia Under Khans and Tsars. The Kievian period, the Mongol Invasions, Ivan the Terrible, the emergence of modern Russia, 19th century tsarist autocracy and the formation of the radical tradition.

Soviet Russia, 1905 to the Present. The Bolshevik revolution, Stalin's rise to power, the Five Year Plans, the Second World War and Russia's place in the modern world.

History of Spain and Portugal. An analysis of the social, economic, political, and intellectual development of the Iberian Peninsula from the time of Ferdinand and Isabella.

Eastern Europe to 1800. A survey of the area's settlement by Slavic and non-Slavic peoples. The establishment of medieval states, the East European renaissance and reformation, and the growth and structure of multi-national empires.

Eastern Europe, 1800 to present. A survey of the decline of empires and the rise of nation states; the destruction of traditional, agrarian societies; the impact of World War II; and the establishment of communist regimes.

Asian and African

Islam in World History: the Foundations (formerly 341). A study of Islam as a religious faith, a civilizing tradition and a political system from the time of the Prophet to the 19th century.

Great Islamic Empires. Examines the social, cultural and economic histories of the Ottoman-Turkish, Safavid-Iranian and Mughal-Indian empires which dominated the Muslim world in the crucial centuries between the end of the Mongol empire and the advent of European dominance.

Islam and the West in the Modern World (formerly 342). An examination of the economic, cultural and political interaction of Europe and the Islamic world.


Africa: The Age of Conquest, African History 1750–1900. The focus is on the origins of Afro-European relations and the political, economic, and military causes of the European partition and occupation of the content.

Africa: The Age of Revolution; African History 1900 to the Present. The workings of the colonial system, the rise and course of independence movements, and the history of individual African states since independence.

India to 1700. Examines the social, cultural and political histories of South Asia from prehistoric times to the waning of the Mughal Empire.

India since 1700. Examines the modern history of India, giving special attention to India as a prototype of economic and political change in the "Third World:"

Ancient and Medieval Japan to 1600. Examines indigenous traditions in Japan and their development in a world dominated by Chinese Civilization. The cultural history of three phases in Japan's past: the archaic kingship; the Chinese-style aristocratic empire; and the decentralized feudal order of warlords. Political order and related literary and religious developments predominate.

The Tokugawa Age and its Demise: Japan 1600–1890. Examines the creation of an authoritarian, hierarchical, and increasingly fluid pre-modern society in an isolated Japan under the Tokugawa shogunate, and its demise with the "Meiji Restoration" of 1868, as Japan turned to a greater involvement with Western Europe and the United States. The political, economic, and intellectual institutions that join medieval and modern Japan will be stressed.
Imperial Japan and its Post-war Reconstruction, 1890 to the present. Examines the establishment of a German-style Constitutional Monarchy, the expanding Japanese Empire and its wars against China and the U.S. (1937-1945), and the restructuring of Japan after the war so as to effect an "economic miracle." Stress the interaction of Japan's cultural history and the international political economy.

Traditional Chinese Civilization: China to 1800. An examination of China from the appearance of civilization during the Shang to the middle of the Qing in 1800. Focuses on the development of Chinese philosophy, the growth of the Chinese empire, the introduction of Buddhism, the development of distinctive social and economic structures, and China's interactions with neighbors in East, Central, and Southeast Asia.

Revolutionary China, 1800 to the Present. A study of China during the nineteenth and twentieth centuries, focusing on the factors that shaped the Chinese revolution, an examination of the various stages of the revolution, and a discussion of how the revolution altered traditional China.

Latin American

Ethnohistory: The Study of Pre-Literate Peoples. Studies of traditional cultures and ethnic groups, especially of non-western societies throughout Latin America.

Exploration and Conquest of the Americas, 15-16th Centuries. A history of European expansion in the Americas, with special attention to voyages of discovery and the first encounters with native Americans.

Colonial Latin America: Power and the Development of a Multi-racial Society. The multi-cultural origins of colonial rule in the Americas from the 15th to the early 19th century.

Independence and Nationalism: The Making of Modern Latin America. A survey of 19th and 20th century Latin America, starting with the wars of independence and emphasizing the rise of nationalism and ideological struggles.

Latin America: The Struggle Between Left and Right (formerly 363). A survey of 20th century Latin America from the Mexican Revolution to the present, emphasizing populism, revolution and counterrevolution.


Inter-American Affairs (formerly 366). A mostly twentieth-century survey of political relationships between the United States and Latin American nations, emphasizing dependency and inter-dependence theories.

From Columbus to Castro: The History of the Caribbean. The history of the Caribbean from colonial times to the present, with special emphasis on the factors that give each nation its particular character (formerly 367).

Hispanics in the United States (formerly 368). A survey of the history, politics, and culture of the major Hispanic groups in the United States: Mexicans, Puerto Ricans, Cubans, Dominicans, and Central Americans. Traces the history of these groups from the 19th century to the present by analyzing their impact on the United States.

Cross Cultural Contact and Conflict in the Americas. A survey of encounters between peoples of different ethnic groups from 1492 to the present.
The Cuban Revolution. General analysis of the impact of the Cuban Revolution on Cuban society and the international political arena. The historical background of the revolution as well as its accomplishments and shortcomings will be emphasized.

United States

History of Chicago. A history of the founding and evolution of Chicago from a frontier village to a major industrial, commercial, and cultural center.

The Origins of the Afro-Americans: Afro-American History to 1750. Europeans in West Africa, the middle passage, slavery in the West Indies, development of the slave trade, introduction of slavery into the American colonies.


The Black Mind in America. Black contributions in the areas of philosophy, theology, politics, literature, and art from 1619 to the present.

History of Communications in the United States. A survey of major developments in printed media in the United States from the seventeenth century to the present.

The Beginnings of American Civilization to 1760. The discovery, exploration, and settlement of the eastern seaboard, with discussion of significant political, economic, and social consequences.

The Age of the American Revolution. The establishment of American independence, adoption of the Constitution; the first years of the republic considered in analytical detail.

Jefferson, Jackson, and the Coming of the Civil War. The historical forces that shaped the early growth and development of the republic.

Civil War and Reconstruction, 1860–1877. The causes of the war, its development, and major problems of the peace.

The Emergence of Modern America, 1877–1914. New cultural patterns, political party battles, growth of big business and organized labor, Populism and the Progressive period.

America in the Age of World War, 1914–1945. A consideration of World War I, the Twenties, the Great Depression, the New Deal, World War II.

The United States Since 1945. Significant developments in American life during the period after World War II.

Caribbean Migrations to the United States. Examines the causes and effects of the increasing migration of people from the Caribbean to the United States. Special emphasis will be placed on United States immigration policy for the area and the political, economic, and humanitarian factors affecting policy.
America in the Nineteenth Century: The Development of the Pragmatic Tradition. A study of the social development of the American people and of patterns of thought, religion, and art.

American Civilization in the Twentieth Century: Ideas and History. Continues course 378.


Topics in American History. (Cross-listed with ENG 367) Taught in cooperation with the English Department. May carry credit in English or History.

United States Constitutional History to 1865. Examines the English colonial charters, the constitutional aspects of the American Revolution and the federal constitution; explores the concepts of federalism and separation of powers with reference to major supreme court decisions.

United States Constitutional History since 1865. Problems of industrial regulation, civil liberties, constitutional issues of the New Deal and controversies arising during and after World War II, including the major decisions of the Warren court.

The Crucible of Freedom: The History of the U.S. Bill of Rights. An examination of the historical, philosophical, and legal developments of the Bill of Rights of the U.S. Constitution. The impact of Supreme Court appointments, decisions, and Constitutional Amendments on these rights will be included in this examination.

The Arbiters of Liberty: History of the U.S. Supreme Court. An examination of the development of the U.S. Supreme Court from its Constitutional foundation into the 21st century. Included in this examination will be the major and controversial appointments to the Court, decisions by the Court, and their impact on U.S. history.

Special

Teaching History and the Social Sciences. Introduces methods, techniques, and basic problems encountered in the teaching of history and the social sciences.

The Law, the State, and Freedom in America. A pre-law discussion course dealing with major ideas of the law, government, and civil liberties in the United States from 1620–1896.

Historical Sources and Evidence: Nuremberg to Central America. Designed to develop in the pre-law student analytic and adversary skills useful in the practice of law and to confront controversial issues dealing with values of the lawyer and the citizen.

Study Tour. An in-depth, on-site overview of the historical, political, social and economic reality of a foreign country. Credit is variable.

Independent Study. Prerequisites: approval of instructor and chair.
HST

Graduate Courses

401  Historical Method and Bibliography.

402  Colloquium in Latin American History. (Prerequisite: one 300-level course in Latin-American History or consent of the instructor)

403  Colloquium in African History. (Prerequisite: one 300-level course in African History or consent of the instructor)

404  Colloquium in American History. (Prerequisite: one 300-level course in American History or consent of the instructor)

405  Colloquium in European History. (Prerequisite: one 300-level course in European History or consent of the instructor)

406  Colloquium in Islamic History. (Prerequisite: one 300-level course in Islamic History or consent of the instructor)

407  Colloquium in Asian History. (Prerequisite: One 300-level course in Asian History or consent of the instructor)

492  Extramural Internship. Internships in alternative careers for history majors. Students are placed in work-study positions under faculty supervision to help prepare themselves for non-teaching careers which require background in historical technique. Credit variable.

497  Independent Study. Prerequisites: approval of instructor and chair.

499  Thesis Research. (Prerequisite: Consent of Chair) Between four and eight hours credit to be determined by the department.

502  Candidacy Continuation. Required of all students who are not registered for regular courses but who occasionally utilize University facilities during completion of course requirements and/or research. Non-credit. $40.00 per quarter.
Interdisciplinary Studies

FACULTY
Albert Erlebacher, Ph.D., Professor, Program Director ........ University of Wisconsin, Madison
Tom Dolan, M.A., Administrative Assistant to the Dean.
College of Commerce ............................................. Marquette University
Louis T. Brusatti, C.M., D. Min., Director of Graduate Programs.
School of Education .............................................. The Catholic University of America

PURPOSES
The Interdisciplinary Studies Program (ISP) at DePaul University offers a unique and flexible opportunity for the student to build a master's program around his or her individual interests.

The program transcends traditional departmental boundaries by allowing the student, with the advice and support of an appointed academic committee, to design a series of courses in a variety of substantive fields.

For example: an urbanologist interested in communications management can design a sequence of interrelated courses in the Departments of Management, English, Political Science and Public Services; someone interested in Arts and Management may tailor a program of courses selected from Arts and Sciences and the College of Commerce.

With proper planning virtually any combination of courses is open to the self-guided master's degree candidate.

PROGRAMS
Master of Arts: Interdisciplinary Studies
Master of Science: Interdisciplinary Studies

MASTER OF ARTS OR MASTER OF SCIENCE:
INTERDISCIPLINARY STUDIES
Admission Requirements
For full admission, applicants must have the following:
Bachelor's degree: adequate background in the appropriate fields required as preparation for the successful completion of the student's proposed program of study
Written rationale for a proposed program of study: rationale to include both a statement of educational and/or vocational objectives and a proposed listing of courses to make up that program
Evaluation and approval of proposed program
Foreign Language or Research Tool: need to be determined as part of the proposed program evaluation and approval
ISP

Degree Requirements

Thesis

Courses: 48 quarter hours of graduate credit, including
1) SP 499 Thesis Research (4 to 8 quarter hours)
2) maximum of 16 quarter hours of credit in 300-level courses, and
3) remainder of credit hours from 400/500 level courses.

No more than six courses may be taken in the College of Commerce.

Foreign Language or Research Tool: provided need for specific proficiencies in a foreign language, in computer science, or in statistics was determined initially as part of the student's proposed program of study.

Thesis

Final Oral Examination: conducted by the Thesis Advisory Committee members appointed by the Director of the Interdisciplinary Studies Program.

Non-Thesis

Courses: 48 quarter hours of graduate credit, including maximum of 16 quarter hours of credit in approved 300-level courses, and remainder of credit hours from 400/500 level courses.

No more than six courses may be taken in the College of Commerce.

Foreign Language or Research Tool: provided need for specific proficiencies in a foreign language, in computer science, or in statistics was determined initially as part of the student's proposed program of study.

Courses

ISP 498 Independent Study. No more than four quarter hours may be applied toward degree requirements.

ISP 499 Thesis Research. Registration for either four or eight quarter hours credit. Student must have written approval, before registering, of his/her thesis director.

ISP 602 Candidacy Continuation. This registration is required of all students who are not registered for courses but who occasionally use University facilities during completion of course requirements or research projects. Non-credit. $40.00 per quarter.
FACULTY

Charles R. Strain, Ph.D., Professor, Program Director ................. University of Chicago
Mary Theresa Miritello, M.A., Assistant Director .................... DePaul University
Avrom A. Blumberg, Ph.D., Professor .................................. Yale University
Caryn Chaden, Ph.D., Assistant Professor ................................. University of Virginia
Stanley J. Damberger, M.A., Associate Professor ...................... Saint Louis University
Jeanne LaDuke, Ph.D., Associate Professor ............................... University of Oregon
Richard J. Meister, Ph.D., Professor ...................................... University of Notre Dame
John E. Price, Ph.D., Associate Professor ................................. Loyola University
Robert Rotenberg, Ph.D., Associate Professor ......................... University of Massachusetts at Amherst
Karen Scott, Ph.D., Assistant Professor ................................. University of California, Berkeley
Arthur W. Thurner, Ph.D., Professor Emeritus ......................... University of Chicago
J. Harry Wray, Ph.D., Associate Professor .............................. University of North Carolina at Chapel Hill
Simone Zurawski, Ph.D., Associate Professor ........................... Brown University

PURPOSES

The Masters of Arts in Liberal Studies (MLS) program is a multidisciplinary approach to graduate education which emphasizes liberal education rather than the preparation for a specific profession or career. It is particularly designed for mature learners established in a career or profession who wish to enrich their personal lives, to explore areas of knowledge that were bypassed in the earlier rush to prepare for a career and/or to pursue an avocation in a disciplined fashion.

PROGRAMS

Master of Arts: Liberal Arts

The MLS program is grounded in a set of four, team-designed core courses. These courses establish the aims and themes of the program, orient the student to a multidisciplinary approach to graduate education, and develop in the student advanced learning skills. They are organized around the theme “Sense of Person/Sense of Place.”

The other components of the program are colloquia, electives, and the integrating project. Colloquia are five-week topical studies that employ various approaches to one particular theme. Colloquia use various formats—guest lectures, panels, films, field experiences—to provide an intensive examination of an issue.

Electives are graduate courses chosen from traditional departmental offerings in the College of Liberal Arts and Sciences. Students select these courses with the aid of an advisor to build a program of study tailored to individual goals and interests. Included under electives are MLS special topics courses. These courses are drawn from existing course offerings in other departments, but they have been redesigned particularly for MLS students. Special Topics courses frequently build upon certain aspects of the core program.

Finally, students complete an integrating project designed to pull together learning experiences and skills developed throughout the student’s course of study in the MLS program. The integrating project may take the form of an individual research paper, original work of prose or poetry, an exhibition or performance, or community service (MLS 499). Alternatively, it may also take the form of completing the Integrating Seminar (MLS 500). In this Seminar
MLS students work on individual projects in consultation with the instructor of the course and the other students. Students prepare a 25-30 page paper and present a summary of it to the class in order to complete their integrating project. The student chooses between MLS 499 and MLS 500 with the help of an advisor.

The MLS program offers three areas of study: the Standard Concentration, the Executive Concentration, and the Women's Studies Concentration. The Executive Concentration has been specially designed to enhance the student's professional training and experience by emphasizing the development of the skills of critical thinking, written communication, and creative imagination. The basis of the executive concentration is an expanded, seven course core program. The Women's Studies concentration focuses on women's accomplishments, conditions and contributions within their cultural contexts. Using interdisciplinary approaches, the Women's Studies concentration crosses the boundaries of traditional fields of study, giving fresh views of their subject matter and creating a new coherent way of understanding human experience. Students choose one of the three concentrations with the help of an advisor.

MASTER OF ARTS: LIBERAL STUDIES

Admission Requirements

For full admission, students must have the following:
Bachelor's degree from an accredited institution.
Admission essay: this essay describes why the student is considering the MLS program, how it fits into a process of personal and intellectual development, and what the student hopes to accomplish by enrolling in the program.
Personal interview with the director or assistant director of the program.

Degree Requirements

Standard Concentration

Courses: completion of 48 quarter hours of graduate credit which must include:
Core Courses:
401 Visions of Self
402 Perceptions of Reality
403 The American Experience
404 The City

All students will be expected to complete the required core courses with a cumulative average of 2.50. Students who do not achieve a 2.50 average in the core will be warned that they will probably experience serious difficulties in the elective portion of the program. They will be advised to consider withdrawing from the program.

Colloquia: two courses chosen from the 430 series of colloquia. Topics vary from year to year. Unless otherwise indicated, all colloquia carry two hours of graduate credit. Students may take two additional colloquia in place of one elective as part of their program of study.

Electives: six courses chosen from MLS special topics courses or existing departmental graduate courses with the aid of the student's advisor. Courses must be selected from at least two different departments in order to preserve the multi-disciplinary character of the program. MLS students may take no more than three 300-level courses as part of their program.
Integrating Project: MLS 499 or MLS 500. Students choosing to work individually on a research or creative project must a) select a project committee with the aid of the Program Director, b) gain approval for their integrating topic.

Students choosing to complete an integrating paper of 25-35 pages by working in a seminar context with other students and the instructor register for MLS 500: Integrating Seminar. In the quarter prior to registering for this course students must a) receive permission form the Program Director to register, and b) discuss their proposed topics with the instructor.

Executive Concentration

Courses: Completion of 48 quarter hours of graduate credit which must include:

Core Courses:
- 401 Visions of the Self
- 402 Perceptions of Reality
- 403 The American Experience or 404 The City
- 442 Ethics and the Economy or 444 Computers, Ethics, and Society
- 452 Great Ideas, Business and Society
- 459 Writing in the Professions

Electives: five courses chosen from MLS special topics courses or existing departmental graduate courses with the aid of the student's advisor. Courses must be selected from at least two different departments in order to preserve the multi-disciplinary character of the program. MALS students may take no more than three 300-level courses as part of their program.

Integrating Project: MLS 499 or MLS 500 (see standard concentration).

Women's Studies Concentration

Courses: Completion of 48 quarter hours of graduate credit which must include:

Core Courses:
- 401 Visions of the Self
- 402 Perceptions of Reality
- 403 The American Experience or 404 The City
- 440 Feminist Theories
- 441 Women Across Cultures

Electives: six courses chosen from MLS special topics courses or departmental graduate courses with the aid of the student's advisor. Two of the six courses must meet the criteria of the Women's Studies concentration, that is, the topic, content and approach to the course must be focused upon the study of women or gender relations. MLS 445, 446, 467, 468, 474, 477, 478, for example, meet these criteria. Courses must be selected from at least two different areas of study in order to preserve the multi-disciplinary character of the program. MLS students may take no more than three 300-level courses as part of their program.

Integrating Project: MLS 499 or MLS 500. Students completing the Women's Studies Concentration may choose either the MLS 499, individual research option or MLS 500, seminar paper option. The topic, content and approach of the integrating project must be focused on the study of women or gender relations. In addition to an MLS advisor the student will work with a Women's Studies advisor. Otherwise, the student follows the procedures given under the Standard Concentration.
Certification For High School (6-12) Teaching

DePaul University School of Education offers approved programs for State of Illinois certification in 6-12 teaching. Students who complete the requirements for the Standard Concentration of the Master of Arts in Liberal Studies listed above may also obtain certification by satisfying the following additional requirements:

1. Courses:
   a. School of Education: CUG 400, 403, 408, RSL 446, CDG 405, 525, and 590 (student teaching).
   b. English: ENG 480, ENG 481, or HST 393
2. Other requirements:
   a. Specific courses in general education (such as science or U.S. history) if not taken as an undergraduate.
   b. Basic skills and subject matter tests.
   c. Field experiences.

Students in this program must apply to and have an advisor in the School of Education.

Graduate Writing Assistance

The MLS core courses challenge the graduate student to sharpen communication skills. In addition, graduate writing assistance is available for interested MLS students who wish to arrange one-on-one writing workshops to enhance their writing. For more information, contact Mary Miritello at (312) 362-5140.

Program Time Limitation

The MLS program is essentially self-paced. However, the University has set a six year limit for the completion of degree requirements. Extensions may be granted by the Dean in unusual circumstances upon the recommendation of the program's director. Students must petition for such an extension in writing.

Courses

Core Courses

401 Visions of the Self. A study of the differing visions of the self as presented in significant documents from the history of ideas. Materials selected from classic texts of literature, philosophy, theology, psychology, and social science.

402 Perceptions of Reality. A survey, beginning with ancient Greece and ending with the modern world, of models of universal order as developed by natural scientists and literary and visual artists.

403 The American Experience. A chronological and thematic study of the location of self within American culture. Readings chosen to reflect both dominant and dissenting ideas at specific points of American history.

404 The City. A topical examination of the urban experience using the methods and sources of both historians and social scientists. Topics include survey of various images of the city, utopian and dystopian visions, and the uniqueness of the modern city.
Colloquia

430  **MLS Colloquium.** Topics vary. See schedule for current offering.

Special Topics Courses

440  **Feminist Theories.** (Cross-listed with WMS 300). A discussion and assessment of the various theories concerning the place of women in society, including theories that have advocated a more positive role for and valuation of women than those of the dominant society. The course will take both an historical and a topical approach.

441  **Women Across Cultures.** (Cross-listed with WMS 394). A critical analysis of the roles of women in societies around the world, with special emphasis on economics, politics, and culture. Focus is on African, Asian, and Latin American cultures and non-dominant groups within Western Societies. Topics vary each quarter.

442  **Ethics and the Economy.** This course will present the thinking of social scientists, philosophers, and theologians on the impact of religious values on the origin and development of American capitalism, and their possible relevance to contemporary discussions of business ethics.

443  **Work Leisure and the Quality of Life.** (Cross-listed with SOC 390/495). The course examines the nature and meaning of work and leisure in western culture, and the relationship of work and leisure to contemporary issues associated with the concept "Quality of Life."

444  **Computers, Ethics and Society.** This course examines the impact of computerized technologies on society with particular attention paid to the ethical issues raised by these social effects.

445  **Gender and Communication.** A review of the differences in communication patterns between women and men. Topics covered include language and language usage differences, interaction patterns, and perceptions of the sexes generated through language and communication.

446  **Power and Difference: The Dream of Meaning and the Tyranny of Interpretation.** The theory of interpretation from biblical book to literary classic. Problems of dichotomy and hierarchy, of ambiguity, pluralism, and paradox in reading writings, in proposing meanings, and in establishing worlds.

450  **Chicago: Architecture and Urban Development.** A study of urban architecture in Chicago from 1833 to 1984, including the role of planning, the purpose of open space, the place of tradition, the impact of modern design theories and evaluation of contemporary developments.

452  **Great Ideas, Business and Society.** (Cross-listed with GSB 540). A study using primary sources of the basic ideas, aspirations and values which humanity strives to attain and which constitute the basis of fundamental demands on the world of business and its managers, their policies and decisions.

453  **Politics, Media and Everyday Life.** (Cross-listed with PSC 321). An examination of various ways in which the mass media influence our perceptions of reality. Political, social and cultural implications of media processes are assessed.

454  **Parable and Imagination: The Literature of Subversion from Jesus to Borges.** The self's vision derives from narrative imagination. But parables are the genre that makes imagination self-conscious and narrative self critical.

455  **Community and The City.** (Cross-listed with Soc. 346 and 423). The course explores the possibilities for community life within urban settings. It emphasizes the development of network relations and cross cutting ties.
The Uses of Autobiography. Study of selected autobiographical writings to serve as models for self-expression.

Endings and Imagination: The Literature of Ancient and Modern Apocalypse. Ancient apocalypse invoked a catastrophic vision of the self's future. Today religious visions are accompanied by the literature of secular apocalypse. Why does imagination become fascinated by apocalyptic endings?

Islam and the West in the Modern World. (Cross-listed with HST 342). An examination of the economic, cultural and political interactions of Europe and the Islamic World.

Writing in the Professions. (Cross-listed with ENG 301 and ENG 494). Improves writing skills useful in semi- and non-technical professions; emphasis on style, tone, awareness of purpose and audience; effective memo, proposal, and report design. Special attention given to writing skills connected with the MALS Integrating Project.

The Dilemma of the Modern Age. (Cross-listed with SOC 473). The crisis of the individual's place in society is exposed through social sciences, philosophy, literature, art, and music. The distinctive features of and responses to modern culture—individualism, alienation, and depersonalization—are illuminated through multiple perspectives.


Seminar in Business Ethics. (Cross-listed with PHL 640). A seminar in business ethics that centers on theoretical practical, and pedagogical issues.

Nationalism and International Conflict. This course will explore the social origins and development of national identities. How these identities have been manipulated to serve specific competitive interests in the past two hundred years will also be discussed.

The Culture of American Catholics. This course will attempt a sociological and historical investigation of the culture of American Catholics, with special attention to the literary works of contemporary American Catholic writers including Flannery O'Connor, Mary Gordon and Eugene Kennedy.


Law, the State, and Freedom in America. (Cross-listed with HST 394). Examination of the relationship of the individual to the state in America. The course will focus on The Federalist Papers and other documents central to our constitutional structure.

Selected Topics on Women in Literature. Topics vary. See schedule for current offering.

Selected Topics: Women, Self and Society. (Cross-listed with WMS 394). Topics vary. see schedule for current offerings.


Scholars and Samurai. Traditional Chinese and Japanese civilizations. (Cross-listed with HST 339). An examination of the major elements of traditional Chinese and Japanese civilizations, emphasizing religion, philosophy, ethics, and political and social structures.

The Arts of Japan. The visual arts of traditional Japanese culture.

Islamic Art. The visual arts of traditional Islamic cultures.
Women and Art. Examines the work of the most significant women artists from the Renaissance to the present. It will also investigate how women have been represented in Western art by both male and female artists.

Topics in Contemporary Film. An examination of recent films and their relation to broader tendencies in contemporary culture. Topics vary; see schedule for current offerings.

Chicago in Fiction and Film. This course examines novels and short stories written by Chicagoans during the twentieth century. It also includes a few film adaptations of these works.

Feminist Ethics. (Cross-listed with PHL 660). Critiques of mainstream empirical and philosophical works and of Carol Gilligan's work on ethics will include discussions on the women's voice in morality, the nature of theories by women vs. men, the formation of plural positions concerning care versus justice, and alternative ethical stances.

The Psychology of Women. (Cross-listed with PSY 561). A review of research and theory on women including sexist biases and methodology, feminist therapy, violence against women, and gender differences in the development of power and sexuality.

Writing Poetry. (Cross-listed with ENG 493). A course in writing and reading poetry. Emphasis placed on class discussion of student writing. Prerequisite: permission of the instructor.

Major Authors. An examination of major writers in the English and American literary traditions. Topics vary; see schedule for current offerings.

Special Topics in Art History. Explorations in the history of art from ancient Egyptians to contemporary art. Topics vary.

Special Topics and Controversies. Occasional offerings of particular contemporary relevance by visiting professors. Topics vary.

Advanced Study

Independent Study. Written permission of the student's advisor and the program director is necessary before registration.

Integrating Project: Research and Preparation. Students may register for this course after the integrating project proposal has been approved by the project committee. This course carries four hours of credit.

Integrating Seminar. Students may register for this course with the approval of the program director and after discussing proposed paper topics with the instructor. This course carries four hours of credit.

Candidacy Continuation. Required of all students who are not registered for regular courses but who occasionally utilize University facilities during completion of course requirements and/or research. Non-credit. $40.00 per quarter.
Mathematical Sciences

FACULTY

Constantine Georgakis, Ph.D. Associate Professor and Chair .... Illinois Institute of Technology
Louis Aquila, M.S. Adjunct Associate Professor ................. DePaul University
J. Marshall Ash, Ph.D. Professor .................................. University of Chicago
Allan Berele, Ph.D. Associate Professor ......................... University of Chicago
Jeffrey Bergen, Ph.D. Associate Professor ...................... University of Chicago
W. S. Black, Ph.D. Lecturer ........................................ University of Wyoming
William Chin, Ph.D. Assistant Professor ......................... University of Wisconsin
Jonathan Cohen, Ph.D. Associate Professor ...................... Washington University
Barbara Cortzen, Ph.D. Associate Professor ..................... University of California, San Diego
Susanna Epp, Ph.D. Associate Professor ......................... University of Chicago
Thomas Farrell, M.S. Lecturer ..................................... University of Chicago
Eduardo Gatto, Ph.D. Associate Professor ......................... Universidad de Buenos Aires
Lawrence Gluck, Ph.D. Associate Professor ....................... Illinois Institute of Technology
Sigrun Goes, Ph.D. Associate Professor ......................... Northwestern University
Jerry Goldman, Ph.D. Professor ................................... Illinois Institute of Technology
Roger Jones, Ph.D. Professor ....................................... Rutgers University
Leonid Krop, Ph.D. Assistant Professor ......................... University of Chicago
Ron Kuziel, M.S. Lecturer .......................................... University of Chicago
Jeanne LaDuke, Ph.D. Associate Professor ...................... University of Oregon
Charles Lindblade, Ed.D. Lecturer ................................. Loyola University
Michael Modica, Ph.D. Lecturer .................................. University of Chicago
Effat Moussa, Ph.D. Associate Professor ....................... University of Iowa
Carolyn Narasimhan, Ph.D. Associate Professor ............... Northwestern University
Rochelle Plager, M.S. Lecturer ..................................... Northeastern Illinois University
Janice Pranger, M.S. Lecturer ..................................... University of Illinois
Walter Pranger, Ph.D. Professor .................................. Illinois Institute of Technology
Pervez Rahman, Ph.D. Lecturer .................................. University of Illinois at Chicago
Eric Rieders, Ph.D. Assistant Professor ......................... University of Syracuse
Beverly Suhr, M.S. Lecturer ....................................... DePaul University
Jacob Towber, Ph.D. Professor .................................... University of Chicago
Stephen Vagi, Ph.D. Professor ..................................... University of Chicago
Gang Wang, Ph.D. Assistant Professor ......................... University of Illinois
Yuen-Fat Wong, Ph.D. Professor ................................ Cornell University
Siham Zitzler, Ph.D. Lecturer ...................................... Lehigh University

PURPOSES

The Department of Mathematical Sciences provides students with the sound mathematical foundation in pure and applied mathematics required for many areas of study.

PROGRAMS

Master of Science: Applied Mathematics

This program is designed to prepare students for careers in such areas as Statistics, Actuarial Science, and Operations Research. Many organizations realize the value of quantitative
methods in their decision making process, consequently there is a need for individuals with such quantitative skills. The program is offered during the evening on DePaul’s Lincoln Park campus. Students can complete the program in two years.

**Combined B.S./M.S. Degree: Applied Mathematics**

Promising undergraduate students may take up to 12 credit hours of graduate courses during their senior year. These may be applied toward the M.S. degree in Applied Mathematics. Serious students may thus finish the M.S. degree in one year after their B.S. degree.

**Master of Arts: Mathematics Education**

The purpose of the program leading to the degree of Master of Arts in Mathematics Education is to offer a timely response to the problem of a critical shortage of secondary and upper elementary school mathematics teachers. The program is intended to improve the quality of mathematics education in schools within the greater Chicago area by providing a demanding sequence of course to individuals carefully chosen for their capacity to rapidly apply what they learn at DePaul to their own classroom settings.

This six quarter degree program is offered on an accelerated basis during intensive weekend sessions and may be taken while in-service at the rate of two courses per quarter. The emphasis in the program is on mathematical content, but significant amounts of time are spent on methods of incorporating new teaching strategies and technologies in the classroom. The program is directly tied to secondary and upper elementary curriculum needs and is directed toward previously or currently certified teachers with degrees in non-mathematics fields or to teachers with bachelor’s degrees in mathematics who wish to upgrade their command of the field.

**MASTER OF SCIENCE: APPLIED MATHEMATICS**

**Admission Requirements**

For full admission, students must have the following:

Bachelor’s degree.

Five quarters of calculus and a course in linear algebra. (The equivalent of the undergradu-
ate sequences MAT 150-152 and 260-262.)

A course in statistics.

A course in computer programming.

(Note: Students with a Bachelor’s degree, who do not meet the admission requirements, may be admitted into the program conditionally until they complete the above courses with a grade of 3.0 or higher.)

**Degree Requirements**

Courses: 48 quarter hours of graduate level work in mathematics

Comprehensive Examination: Part I covers the material in MAT 451, 452 and 453.
Part II is based on courses from the students area of concentration.

All students in the program are required to complete the following eight core courses:

- MAT 451 Probability and Statistics I
- MAT 452 Probability and Statistics II
- MAT 453 Probability and Statistics III
- MAT 456 Applied Regression Analysis
- MAT 459 Simulation Models and the Monte Carlo Method
MAT

MAT 470 Advanced Linear Algebra
MAT 485 Numerical Analysis
MAT 487 Operations Research I

In addition, students must complete four courses which are selected from their area of concentration.
1. Statistics Concentration:
   MAT 454, 457, 489, 512, 528
2. Actuarial Science Concentration:
   MAT 461, 462, 463, 464, 465, 466, 512
3. Operations Research Concentration:
   MAT 488, 489, 455, 486, 512

With the approval of the student's graduate advisor, students may take up to two electives from related disciplines such as Physics, Computer Science, and Commerce.

Computer Usage

The computer plays an important role in the program. It is used to illustrate ideas that arise in various courses, to do the data analysis required in the statistics courses, to find solutions to problems in the operations research course, and to find numerical solutions to problems that arise in numerical analysis and mathematical modelling. Computer software is used throughout the courses and these packages are likely to play an important role in the solution of the problems the student ultimately finds in his or her place of employment.

MASTER OF ARTS: MATHEMATICS EDUCATION

This program is administered by the Department of Mathematical Sciences in conjunction with the School of Education through the College of Liberal Arts and Sciences. Details regarding admission requirements, course schedules, etc. may be obtained from the Chairman of the Department of Mathematical Sciences.

Registration for M.A. in Mathematics Education program courses is open only to program majors or to those students who have the written authorization of the program director.

Degree Requirements

The standard program consists of twelve courses: 607, 609, 610, 611, 612, 620, 621, 630, 631, 650, 651, and 660. Certain modifications may be made in consultation with and subject to the approval of the program director.

Certification For High School (6-12) Teaching

DePaul University School of Education offers approved programs for State of Illinois certification in 6-12 teaching. Students who complete the requirements for the Master of Arts in Mathematics Education listed above may also obtain certification by satisfying the following additional requirements:
1. Courses:
   a. School of Education: CUG 400, 403, 408, RSL 446, CDG 405, 525, and 590 (student teaching).
   b. MAT 309 or MAT 609
2. Other requirements:
   a. Specific courses in general education (such as science or U.S. history) if not taken as an undergraduate.
   b. Basic skills and subject matter tests.
   c. Field experiences.

Students in this program must apply to and have an advisor in the School of Education.

Courses

Actuarial Science

461 Actuarial Science I. The Theory of Interest. The theory and application of compound interest to annuities, amortization schedules, sinking funds, bonds, and yield rates. (Prerequisite: MAT 162 or 152.)

462 Actuarial Science II. Basic Contingencies. The theory and applications of contingency mathematics in life and health insurance, annuities, and pensions from both a probabilistic and a deterministic viewpoint. Topics include: survival distribution and life tables, life insurance and life annuities. (Prerequisite MAT 461 and 451.)

463 Actuarial Science III. Advanced Contingencies. A continuation of MAT 462. Topics include: net premiums, net premium reserves, multiple life functions, multiple decrement models, and valuation theory for pension plans. (Prerequisite: MAT 462.)

464 Actuarial Mathematics I. Introduction to Risk Theory and Applications. Economics of insurance, individual risk models for short term and single term, collective risk models over an extended period and applications (Prerequisite: MAT 453)

465 Actuarial Mathematics II. Survival models, estimation and construction of mortality tables (Prerequisite: MAT 453).

466 Mathematics of Demography. Mathematical methods for population and demographic analysis (Prerequisite: 453).

Applied Algebra and Analysis

470 Advanced Linear Algebra. Matrix representation of linear transformations, inner product and rotations, eigenvalues and eigenvectors, diagonalization of symmetric linear transformations, principal axis theorem and positive definite quadratic forms, applications to geometry and statistics. (Prerequisite: 262.)

481 Fourier Analysis and Special Functions. The course covers the basic principles of discrete and continuous Fourier analysis and some of its applications currently used in scientific modeling. Students will use the computer to implement the computational algorithms developed in the course. Some of the topics covered will include Fourier transforms and their application to signal and image processing, discrete Fourier series, the fast Fourier transform algorithm and applications to digital filtering, and the Radon transform and its applications to Tomography. (Prerequisite: MAT 262.)
MAT

484 Mathematical Modelling. Modelling of real world problems using mathematical methods. Includes a theory of modelling and a study of specific models, selected from deterministic stochastic, continuous and discrete models. (Prerequisite: 220 or 262, and 451 or 348)

Quantitative Methods and Operations Research

485 Numerical Analysis I. Use of a digital computer for numerical computation. Error analysis, Gaussian elimination and Gauss-Seidel method, solutions of linear and non-linear equations, function evaluation, approximation of integrals and derivatives, Monte Carlo methods. (Prerequisite: 262 and a programming course.)


487 Operations Research I: Linear Programming. The Linear Programming problem and its dual; the simplex method; transportation and warehouse problems; computer algorithms and applications to various fields. (Prerequisite MAT 220 or MAT 262 and programming knowledge.)

488 Operations Research II: Optimization Theory. Integer programming; non-linear programming; dynamic programming. (Prerequisite: MAT 487.)

Statistics and Probability

451 Probability and Statistics I. Probability spaces, combinatorial probability methods, continuous and discrete random variables and distributions, moment generating functions, development of the classical discrete and continuous distributions and their applications (Corequisite: 260.)

452 Probability and Statistics II. Joint probability distributions and correlation; law of large numbers, and central limit theorem; sampling distributions; theory of estimation. (Prerequisite: MAT 451.)

453 Probability and Statistics III. Principles of hypothesis testing, most powerful tests and likelihood ratio tests, linear regression; one-way analysis of variance; categorical data analysis, nonparametric statistics. (Prerequisite: MAT 452.)

454 Multivariate Statistics. The multivariate normal distribution. The general linear model. Multivariate regression and analysis of variance; Discriminant Analysis; principal component and factor analysis; applications and use of statistical software. (Prerequisites: MAT 453.)

456 Applied Regression Analysis. Simple linear, multiple and polynomial regression models. Selection of best regression equation and examination of residuals for homoscedasticity and autocorrelation. Use of statistical software. (Prerequisite: MAT 453 or MAT 348 and consent.)

528 Design and Analysis of Experiments. Linear models and quadratic forms, Single, two and several factor experiments, incomplete designs, confounding and fractional factorial experiments. Response surfaces and partially balanced incomplete block designs. (Prerequisite: MAT 453 or MAT 348 and consent.)
The following courses may be offered if there is interest from a significant number of students. Some of these courses may be offered during the day.

400 **Applied Abstract Algebra I.** The course will serve as an introduction to the algebraic structures found useful in applied mathematics, electrical engineering, and computer science. Applications of abstract algebra to algorithms and algebraic computing as well as to computer engineering in general are covered. Specific applications include automata theory, analysis of algorithms, and the fast Fourier transform. Topics covered include sets, induction, functions, relations and graphs, rings and Boolean algebras and semigroups and groups. These topics have applications to finite state machines, graph theory, switching circuits and functions, formal language, and coding theory.

401 **Applied Abstract Algebra II.** This course is a continuation of MAT 400. Topics covered include lattices, linear algebra and field theory, linear machines, and algebraic coding theory. These topics have applications to decomposition and structure of finite state machines, to fast Fourier transforms, transfer functions and shift registers, and to BCH coding, decoding, and Reed-Solomon codes. (Prerequisite: MAT 400.)

455 **Stochastic Processes.** Discrete Markov chains and random walk, birth and death processes, Poisson process, queuing systems, and renewal processes. (Prerequisite: MAT 453.)

457 **Nonparametric Statistics.** Inference concerning location and scale parameters, goodness of fit tests, association analysis and tests of randomness using distribution free procedures. (Prerequisite: MAT 553 or MAT 348 and consent.)

458 **Statistical Quality Control.** Control charts for means, standard deviations and attributes; acceptance sampling and sampling inspection using one and multi-stage sampling methods. Emphasis on industrial quality control problems. (Prerequisite: MAT 453 or MAT 348 and consent.)

459 **Simulation Models and the Monte Carlo Method.** Techniques of computer simulation of the classical univariate and multivariate probability models, and such random processes as random walk, Markov chains, and queues. (Prerequisite: MAT 453 or MAT 348 and consent.)

489 **Queueing Theory with Applications.** Discrete and continuous time Markov chain models. Queuing systems, and topics from renewal and reliability theory. (Prerequisite: MAT 453.)


496 **Game Theory.** The minimax theorem for two-person zero-sum games. Two-person general sum games and non-cooperative person games: Nash equilibrium.

512 **Applied Time Series and Forecasting.** Development of the Box-Jenkins methodology for the identification, estimation, and fitting of ARIMA, and transfer-function stochastic models for the purpose of analyzing and forecasting stationary, non-stationary, and seasonal time series data. The course emphasizes practical time series data analysis using such computer packages as Sybil/Runner and BMDP, and application to economic, business, and industrial forecasting. (Prerequisite: MAT 453 or consent.)

526 **Sampling Theory and Methods.** Simple random, stratified, systematic, and cluster sampling. Multistage and area sampling. Random response and capture-release models. (Prerequisite: MAT 453 or MAT 348 and consent.)
Mathematics Education


610 Calculus and Analysis for Mathematics Teachers. I. Functions, limits, the derivative and its applications. Study of some applications to classroom teaching using microcomputers.

611 Calculus and Analysis for Mathematics Teachers. II. The integral and its applications, exponential and logarithm, techniques of integration. Study of numerical algorithms and implementation using microcomputers. (Prerequisite: MAT 610.)

612 Calculus and Analysis for Mathematics Teachers. III. Infinite sequences and series. Applications to numerical analysis and approximation with computer applications, differential equations. (Prerequisite: MAT 611.)


621 Explorations in Turtle Geometry. Use of the LOGO language to investigate topics in Euclidean, analytic, and differential geometry, and in topology. Closed paths, space filling designs, mazes, the Jordan Curve Theorem, and spherical geometry are among the topics included. Emphasis is on understanding key concepts (symmetry, interior, invariants, curvature) as well as on the role computation and computers could play in enriching mathematics curricula. (Prerequisite: MAT 607 and MAT 620, Corequisite: MAT 611.)

630 History of Mathematics Through Problem Solving. I. Coverage of early classical problems and techniques in number theory, algebra, and geometry from an historical point of view. Stress on both evolutionary aspects of the subjects and the solution of concrete problems.

631 History of Mathematics Through Problem Solving. II. Continuation of MAT 630. (Prerequisite: MAT 630.)

650 Probability and Statistics for Mathematics Teachers. I. Combinatorics, sets, probability, random variables, distribution and density functions, standard probability laws, jointly distributed random variables. Use of computers to illustrate distributions.

651 Probability and Statistics for Mathematics Teachers. II. Central Limit Theorem, point and interval estimation of parameters, hypothesis testing, least squares and regression. Introduction to computer packages. (Prerequisite: MAT 650.)

660 Discrete Structures for Mathematics Teachers. Mathematical induction, modular arithmetic and number theory, graphs, matrices, fundamental algebraic structures and their morphisms.

670 Abstract and Linear Algebra for Teachers. Number systems, polynomial rings, fields, vector spaces, and groups. This course provides the theoretical foundation for many topics covered in high school mathematics courses. (Prerequisite: MAT 612 and 660 or consent of program director.)
699  **Topics in Mathematics for Teachers.** Diverse topics in mathematical modeling or mathematical appreciation germane to the secondary classroom. (Prerequisite: Consent of instructor.)

**Miscellaneous**

599  **Independent Study.** Offered by arrangement. Approval by Department Chairman required.

602  **Candidacy Continuation.** Required of all students who are not registered for regular courses but who occasionally utilize University facilities during completion of course requirements and/or research. Non-credit. $40.00 per quarter.
Nursing

FACULTY
Joan E. Bowers, Ed.D., R.N., Professor and Chair ........................................ Columbia University
Jeri S. Andrus, M.S., C.R.N.A., Adjunct Professor ........................................ DePaul University
Marianne Araujo, M.S., R.N., Adjunct Professor ........................................ DePaul University
Sally A. Ballenger, M.S., R.N., Associate Professor ...................................... DePaul University
Ann Scott Blouin, M.S.N., R.N., Adjunct Professor ............................. Loyola University of Chicago
Janie Lee Campbell, Ph.D., R.N., Adjunct Professor ............................. University of Illinois
Veronica E. Drantz, Ph.D., Adjunct Professor ........................................ DePaul University
Ann Hahn-Baiyor, M.S.N., R.N., Instructor ........................................ University of Pennsylvania
Judith M. Kachel, Ed.D., R.N., Associate Professor ............................ Northern Illinois University
Michael Middleton, M.Ed., C.R.N.A., Adjunct Professor ....................... University of Texas at Austin
Mary Ninan, M.S.N., R.N., Assistant Professor ........................................ Madras University
Steven Outly, M.D., Adjunct Professor ........................................ University of Illinois
Michele Poradzisz, M.S.N., R.N., Instructor ........................................ Saint Xavier College
Bernadette Roche, M.S., C.R.N.A., Adjunct Professor ........................... Rush University
Daljeet Singh, M.D., Adjunct Professor ........................................ Rangoon Medical College-Burma
Donald Vidger, M.D., Adjunct Professor ........................................ Chicago Medical School
Patricia Wagner, Ed.D., R.N., Associate Professor ............................ Northern Illinois University
Chang Ho Wee, M.D., Adjunct Professor ........................................ Seoul National University

PURPOSES
The purpose of the graduate program in nursing is to prepare qualified nurses for leadership roles in teaching, administration and nurse anesthesia. Provision is made for testing various nursing theories and continued professional growth and specialized skill development.

PROGRAMS
Master of Science: Nursing
Concentrations
- Nursing Education
- Nursing Administration
- Nursing Administration and Public Science Administration
- Nurse Anesthesia

The core nursing program includes continuing nursing theory, nursing research, health policy and contemporary health care issues. Through specifically designed learning experiences the student will pursue professional development in either nursing education, nursing administration, or nurse anesthesia. Cognate courses are taken to support further development in one of these areas.

The focus in the Nursing Education track is twofold: 1) analysis of theories that predict preventive and health supportive behaviors in individuals and groups and 2) exploration of strategies for teaching and learning with selected populations. Students' own clinical interests form the basis for developing individualized learning contracts for the teaching practica courses.
The Nursing Administration track provides 1) opportunity to assess the heuristic value of selected organizational and management theories and 2) guided experience in testing administrative practice models in selected health care agencies.

The Nursing Administration and Public Service Administration program is a combined degree option offered in conjunction with the Public Services Program.

The Nurse Anesthesia Program is a cooperative program between Ravenswood Hospital Medical Center School of Anesthesia and the graduate nursing program at DePaul University. The Nurse Anesthesia Program is accredited by the American Association of Nurse Anesthetists; National League for Nursing accreditation will be sought at the next scheduled visit (spring, 1993).

MASTER OF SCIENCE: NURSING

Admission Requirements

Bachelor's degree in Nursing from a National League for Nursing accredited program.
Acceptable baccalaureate and/or graduate cumulative grade point average.
Satisfactory achievement on the Graduate Record Examination Aptitude Test (verbal, quantitative and analytical). (GRE tests taken five years or more prior to entry into the program may need to be retaken.) *Acceptance into the program is based upon an acceptable combination of the cumulative GPA and the GRE score.

Undergraduate statistics course or its equivalent
Physical assessment course
Certification as a basic rescuer in cardiopulmonary resuscitation
Current licensure as a registered professional nurse in Illinois
Physical examination, positive rubella titer, and any other requirements of specific clinical agencies within the year of clinical and practicum courses.

Professional liability insurance must be maintained through the clinical and practicum courses and purchased through DePaul University. Nurse Anesthesia students will purchase insurance as prescribed by Ravenswood Hospital School of Nurse Anesthesia.

Word processing proficiency is strongly recommended in order to meet program requirements.

*For students entering the Nurse Anesthesia concentration, these additional requirements must be met:
  - One year of chemistry (organic and inorganic chemistry) taken within the last five years.
  - A minimum of one year of employment in an Intensive Care Unit.

Degree Requirements

Nursing Education Concentration

Courses: minimum of 48 quarter hours

Core Courses:

- NSG 400  Nursing Theories
- NSG 401  Nursing Research
- MAT 342  Elements of Statistics II
- NSG 430  Health Policy and Nursing
- NSG 471  Contemporary Health Care Issues

Other Required Courses:

- NSG 432  Theories of Health Behaviors
- NSG 455  Curriculum Development for Health Care Systems
- NSG 458  Teaching in Health Care Systems
NSG 459  Practicum in Teaching (6-8 quarter hours)
NSG 405  Nursing Research II (Thesis)

OR

Additional Cognate
Two to Three Cognates (8-12 quarter hours)

Comprehensive Written Examination: qualification for this examination requires completion of all course requirements and professional portfolios.

Nursing Administration Concentration

Courses: minimum of 48 quarter hours

Core Courses:
- NSG 400  Nursing Theories
- NSG 401  Nursing Research
- MAT 342  Elements of Statistics II
- NSG 430  Health Policy and Nursing
- NSG 471  Contemporary Health Care Issues

Other Required Courses:
- NSG 451  Organizational Theory
- NSG 452  Organizational Management
- NSG 456  Practicum in Nursing Administration (6 quarter hours)
- NSG 457  Practicum in Nursing Administration II (6 quarter hours)
- MPS 533  Financial and Economic Foundations of Public Service*

*Prerequisite is MPS 406 or equivalent

- NSG 405  Nursing Research II (Thesis)

OR

Additional Cognate
Two Cognates (8 quarter hours)

Comprehensive Written Examination: qualification for this examination requires completion of all course requirements and professional portfolios.

Nursing Administration and Public Service Administration Concentration

The degree requirements for this concentration are the same as those for the Nursing Administration Concentration except for the changes described below.

Core Courses:
- MPS 542  Policy Design and Analysis may be substituted for NSG 430

Other Required Courses (in addition to those listed above):
- MPS 512  Public Service Organizations in the Public Context
- MPS 557  Need Assessment and Program Evaluation

Cognate Courses: Two courses selected from Nursing or MPS courses

Nurse Anesthesia Concentration

Courses: minimum of 64 quarter hours

NSG courses will be taught on the DePaul Lincoln Park Campus. Courses in nurse anesthesia will be taught on the Ravenswood Campus and transferred to DePaul University in block credit at the completion of the program.
Core Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSG 400</td>
<td>Nursing Theories</td>
</tr>
<tr>
<td>NSG 401</td>
<td>Nursing Research</td>
</tr>
<tr>
<td>MAT 342</td>
<td>Elements of Statistics II</td>
</tr>
<tr>
<td>NSG 430</td>
<td>Health Policy and Nursing</td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>NSG 471</td>
<td>Contemporary Health Care Issues</td>
</tr>
<tr>
<td>NGS 433</td>
<td>Legal/Ethical Issues in Health Care</td>
</tr>
</tbody>
</table>

Thesis: Optional

Nurse Anesthesia Courses:

- Chemistry and Physics (6 quarter hours)
- Anatomy, Physiology and Pathophysiology I
- Anatomy, Physiology and Pathophysiology II
- Anatomy, Physiology and Pathophysiology III
- Principles of Anesthesia Practice I
- Principles of Anesthesia Practice II
- Principles of Anesthesia Practice III
- Pharmacology I (6 quarter hours)
- Pharmacology II
- Anesthesia Practicum I (0 quarter hours)
- Anesthesia Practicum II (0 quarter hours)

Comprehensive Written Examination: qualification for this examination requires completion of all course requirements and professional portfolios.

This curriculum is subject to change to meet standards congruent with the current Illinois Nursing Act and various accrediting agencies.

Courses

All courses are four quarter hours unless otherwise indicated.

400 Nursing Theories. A seminar course designed to examine the nature, function and development of concepts, models and theories. The structure of a theory will be analyzed in reference to the relationship between its components and the type of theoretical statements utilized. Selected theories in nursing will be critiqued.

401 Nursing Research I. A seminar course emphasizing the concepts of the research process through presentation, discussion, and analysis of various research approaches, methodologies, research designs, instrumentation, and ethical issues. Critiques of published nursing research will enable the student to utilize concepts presented to evaluate current studies. A thesis proposal will be developed. (Prerequisite: Advanced Statistics.)

405 Nursing Research II. This course will allow the student to conduct an original study terminating in a completed thesis. This study will be done under the guidance of a research advisor following a prescribed format. (Prerequisite: NSG 401.)

406 Extended Research. This course will be required for students who do not complete their thesis during the quarter after all other course work is completed. (Zero credit. Fee will be fifty dollars per quarter.)
Health Policy and Nursing. Systematic analysis of health policy related to nursing including scope, dynamics, conceptual and practical dilemmas. Emphasis is on major issues involved in designing, implementing and evaluating policy decisions.

Theories of Health Behaviors. Analyzes selected theories that predict decision making in health care issues. Concepts and theories related to prevention and optimal health care as well as social, cultural and economic aspects of wellness and illness are explored. (6 hrs.)

Legal/Ethical Issues in Health Care. Analysis of selected legal and ethical issues in health care and nursing practice. Case studies illustrating legal issues and ethical dilemmas in nursing administration, education, practice and research will be explored.

Independent Study. This course is reserved for individuals who wish to do focused study at the graduate level.

Selected Topics in Nursing. This course is reserved for special seminars organized from time to time to accommodate the needs of groups interested in specific topics.

Organizational Theories. Organizational theories are explored through systematic inquiry of principles and methods of management, sociology, economics, political science, social psychology, and nursing theories. Knowledge from organizational science is applied to the discipline of nursing administration.

Organizational Management. Concepts of organizational management of health care systems are analyzed. Concepts are drawn from theories of change, communication, human relations, strategic management and quantitative decision making theories.

Program Design in Nursing Education. Theories, principles and approaches to curriculum development are explored. Basic elements of curricular design are examined in relation to traditional and evolving paradigms, reflecting development in social and professional dimensions of health care.

Practicum in Nursing Administration I. Application and synthesis of theories of nursing and management is conducted through guided practical experience in selected health care settings. Student needs and interests are integrated into a systematic analysis of the selected setting. (6 hrs.) (Prerequisite: 451, 452.)

Practicum in Nursing Administration II. An in-depth project based on the analysis of the health care setting selected in NSG 456 is conducted. Project selection is based on the needs and interests of both the student and the selected health care organization. (6 hrs.) (Prerequisite: 451, 452, 456.)

Teaching in Health Care Systems. Course explores theories, principles and strategies involved in the teaching-learning process. Emphasis is focused on analysis, planning, and evaluating teaching methods and strategies in a variety of learning environments.

Practicum in Nursing Education. Observation, investigation and application of theories, principles and methods of teaching and learning are conducted in selected health care settings. Opportunity is provided for the development and implementation of individual learning goals under the guidance of a preceptor.) (6-8 hrs.) (Prerequisite: 455, 458.)

Contemporary Health Care Issues. Seminar course that explores current issues using ethical, legal and political foci to analyze these issues and relevant research as related to nursing and health care.
Nurse Anesthesia.
Courses are to be taken in sequence. Credit hours are listed for each course. These courses will be taught on the Ravenswood campus. All practicum courses are under the supervision of a Certified Registered Nurse Anesthetist (CRNA) and/or a Medical Doctor of Anesthesiology (MDA). No credit will be given for practicum courses, but all practica must be sequentially passed at a satisfactory level to remain in the program. All courses are four quarter hours unless otherwise indicated.

Chemistry and Physics (Includes Cell Physiology).
The principles of biochemistry, cell physiology, and physics will be discussed in detail. Emphasis is placed on the application of principles of chemistry and physics in the practice of anesthesia. (6 qtr. hrs.)

Anatomy, Physiology and Pathophysiology I.
This course will concentrate on the origin, structure and function of the different divisions of the nervous system, with special emphasis on the autonomic nervous system, conduction and transmission of neural impulses, major motor and sensory pathways, and the integration of the reflex responses. Pathophysiology of central and peripheral neurological disorders are detailed with emphasis on anesthetic implications. (4 qtr. hrs.)

Anatomy, Physiology & Pathophysiology II.
This course reviews in detail the endocrine and cardiovascular systems, including their structure, function and role in homeostasis. Emphasis is placed on the pathophysiology, treatment, and anesthetic implications of endocrine and cardiovascular disorders. (6 qtr. hrs.)

Anatomy, Physiology, and Pathophysiology III.
The structure, function and disorders of the respiratory and renal systems are detailed with emphasis upon breathing mechanics, gas diffusion and transport, and the role of both systems in maintaining homeostasis. The impact of respiratory and renal disease on anesthetic management will be stressed. (6 qtr. hrs.)

Principles of Anesthesia Practice I.
Basic principles of anesthesia are stressed including pre-operative patient assessment, components of the anesthesia machine and the different breathing circuits, signs and stages of general anesthesia, airway management, regional anesthesia, charting, monitoring and positioning of the surgical patient. (4 qtr. hrs.)

Principles of Anesthesia Practice II.
Anesthetic management of the obstetrical, pediatric and geriatric patient is the focus of this course with emphasis placed on the pre-operative assessment, fluid management, equipment and anesthetic techniques specific for those patient populations. Legal aspects of nurse anesthesia practice is also covered in detail. (4 qtr. hrs.)

Principles of Anesthesia Practice III.
This course is designed to prepare the student to make pre-operative assessments and develop appropriate anesthesia care plans for trauma and burn victim, as well as the patient undergoing head, neck and peripheral vascular surgery. The course also includes 12–lead EKG interpretation. (4 qtr. hrs.)
Pharmacology I.

Pharmacokinetics and pharmacodynamics of anesthetic drugs are discussed in detail and include: inhalation, intravenous and local anesthetics, muscle relaxants and respective antagonists. (6 qtr. hrs.)

Pharmacology II.

The pharmacodynamics and pharmacokinetics of drugs used in the treatment of neuro, endocrine, cardiac, renal and respiratory disorders are stressed including anesthetic implications of their use. Ventilator management, pulmonary function testing blood gas analysis are also covered. (4 qtr. hrs.)

Anesthesia Practicum I.

First year clinical practicum (2nd, 3rd and 4th quarters) in which the student will gain experience in the clinical application of the basic skills and techniques of anesthesia for elective and emergency surgery. In conjunction with this practicum, the nurse anesthesia student will participate in seminar discussions and lectures of current topics of anesthesia. (Prerequisites: Pharm I. PAP I.) (No Credit.)

Anesthesia Practicum II.

Second year clinical practicum (1st, 2nd, 3rd and 4th quarters) in which the student will have the opportunity to practice all aspects of anesthesia including actual administration of regional anesthesia. This practicum includes specialty rotations in obstetrical, pediatrics, open-heart and neuro surgery. In conjunction with this practicum, the nurse anesthesia student will participate in seminar discussions and lectures of current topics of anesthesia. Prerequisites: Anesthesia Practicum I. APP I, II, and III. (No Credit.)
Philosophy

FACULTY

David W. Pellauer, Ph.D., Associate Professor and Chair ........................................ University of Chicago
Kenneth D. Alpern, Ph.D., Associate Professor ....................................................... University of Pittsburgh
Peg Birmingham, Ph.D., Associate Professor ......................................................... Duquesne University
Bernard J. Boelen, Ph.D., Professor Emeritus ......................................................... University of Louvain
Robert A. Cooke, Ph.D., Associate Professor ........................................................ University of Chicago
Parvis Emad, Ph.D., Professor ................................................................................... University of Vienna
Manfred S. Frings, Ph.D., Professor ........................................................................ University of Cologne
Stephen G. Houlgate, Ph.D., Associate Professor .................................................... Cambridge University
James W. Keating, Ph.D., Professor Emeritus ......................................................... Catholic University of America
Daryl Koehn, Ph.D., Assistant Professor .................................................................. University of Chicago
David Farrell Krell, Ph.D., Professor .......................................................................... Duquesne University
Gerald F. Kreyche, Ph.D., Professor Emeritus ........................................................ University of Ottawa
Mary Jeanne Larrabee, Ph.D., Associate Professor ................................................ University of Toronto
Robert Lechner, C.Pp.S., Ph.D., Professor Emeritus ........................................... University of Fribourg
Bill Martin, Ph.D., Assistant Professor ................................................................ University of Kansas
Will McNeil, Ph.D., Assistant Professor ................................................................ University of Essex
Thomas N. Munson, S.T.L., Ph.D., Professor Emeritus ......................................... University of Louvain
Michael Naas, Ph.D., Assistant Professor ............................................................... SUNY-Stony Brook
Katherine Rudolph, M.A., Instructor ........................................................................ Yale University
Donald Hermann, Adjunct Professor ......................................................................... L.L.M. (Harvard), Ph.D. (Northwestern)
David White, Ph.D., Adjunct Associate Professor ................................................... University of Toronto

PURPOSES

The Department's graduate programs seek 1) to prepare those for teaching and research who have the scholarly competence to carry out academic work culminating in the master's or doctor's degree; and 2) to offer to the capable adult whose philosophical goals are non-vocational the opportunity to study philosophy for personal enrichment.

In keeping with the interests of its faculty and the need for focus on the graduate level, the Department concentrates on nineteenth and twentieth-century Continental Philosophy and the historical sources of these movements. The Department also specializes in theoretical and applied ethics.

The Department offers directed research, courses, seminars, mini-courses, and colloquia to stimulate the student's investigation of various philosophies and philosophical problems. It also stresses faculty counseling so that the program of each student can be tailored to his or her particular needs.

PROGRAMS

Master of Arts

The Department offers two programs leading to the master's degree. The first requires a Master's thesis and is intended for those desiring to continue their studies for the doctoral degree. The second program does not require a thesis and is intended as a terminal degree for those desiring to further their knowledge of philosophy but who may not intend to make a career of it. Even students taking a terminal Master's degree can profit from the experience of writing a thesis, however, and upon the approval of the Graduate Committee this option is open to them.
Doctor of Philosophy

The Department offers courses, seminars, independent studies and dissertation direction culminating in the award of a Ph.D. in philosophy. While the program touches diverse areas of philosophy, its chief orientation is toward Continental Philosophy, with many members of the department concentrating on issues in ethics and values studies within this tradition or in relation to the broader philosophical tradition.

All regular graduate courses are taught in a series of "streams" organized each year under generic titles, such as German Idealism; Ethics, Society, and Politics; or Contemporary French Philosophy. These are all research courses, with no distinction being made between M.A. and Ph.D. course levels. The expectation is that M.A. students will pursue the three courses of a stream through the year, unless they can offer convincing reasons for a shift from one stream to another; Ph.D. students, after completion of the M.A., are free to move in and out of streams as their research interests dictate.

MASTER OF ARTS: PHILOSOPHY

Admission Requirements

For full admission, students must have the following:
Bachelor's degree in Philosophy or a related field, with evidence of excellent undergraduate performance.

Satisfactory completion of a minimum of 44 quarter hours (or its equivalent) in major sequence in philosophy. Students who did not major in philosophy may be admitted conditionally, with the requirement that they complete certain undergraduate courses or directed study before being fully admitted into the program.

All applicants must submit the following material: (1) a completed University Graduate Application Form; (2) official transcripts of all previous academic work; (3) Graduate Record Examination general aptitude (verbal and quantitative) scores; (4) two letters of recommendation from teachers familiar with the applicant's work; (5) a statement of intent indicating why the applicant desires to pursue graduate work in this program, including areas of proposed research; and (6) a writing sample (e.g., a term paper, seminar paper, or a senior thesis or portion thereof).

To be considered for a fellowship (which includes a full tuition waiver and a stipend) or any tuition waiver, all materials must be received by February 15, 1992.

Degree Requirements

Non-Thesis Option

Courses: 44 quarter hours of graduate study, including:
36 quarter hours of philosophy courses numbered 400 and over.
8 quarter hours in philosophy courses numbered 300 and over or, if the necessary prerequisites are met and the Graduate Affairs Committee gives written approval, the 8 quarter hours may be taken in fields related to philosophy.

Each year the full-time student will submit three research papers which will be kept on file in the General Office of the Department. (Part-time students will submit two papers.) These papers will be double-marked, first by the instructor of the course for which they were prepared, then by a second member of the faculty. In cases of discrepancy, the faculty members will meet to discuss the final grade; irresolvable differences will be adjudicated by the Director of Graduate Studies. A Student Progress Committee will review every student's progress toward the degree twice a year and report to the Graduate Affairs Committee whether adequate progress is being made. Students deemed not to be making satisfactory progress may be placed on probation or required to leave the program.
Successful completion of the language requirement. In most cases this will require a reading knowledge of French or German. Other modern languages or Greek or Latin may be substituted if appropriate to the general direction of a student's research.

Thesis Option:
As above, except that the 44 credit hours shall consist of 36 credit hours of course work and a thesis of approximately 50-75 pages, including scholarly apparatus (= 8 credit hours of PHL 698: M.A. Thesis Research). The thesis will be double marked and under exceptional circumstances the readers may require an oral examination.

DOCTOR OF PHILOSOPHY: PHILOSOPHY
Admission Requirements
For full admission, student must have Master of Arts degree in Philosophy or its satisfactory equivalent. Previous academic work must present clear evidence of the applicant's ability to pursue successfully the doctoral program. All applicants must submit the following material: (1) a completed University Graduate Application Form; (2) official transcripts of all previous academic work; (3) Graduate Record Examination general aptitude (verbal and quantitative) scores; (4) two letters of recommendation from teachers familiar with the applicant's work; (5) a statement of proposed research; (6) a writing sample (e.g., a term paper, seminar paper, or an M.A. thesis or portion thereof).
To be considered for a fellowship (which includes a full tuition waiver and a stipend) or any tuition waiver, all materials must be received by February 15, 1992.

Degree Requirements
The following are the minimal degree requirements. Additional study may be required depending on the student's academic background and his or her achievement in the program. Residency: three consecutive quarters of full-time residence, i.e., registration for eight credit hours each quarter.
Courses: minimum of 108 quarter hours of post-baccalaureate credit including
64 quarter hours of work in addition to the work required for the M.A., to comprise 48 quarter credit hours of course work and 16 credit hours of PHL 699: Thesis Research. Until admitted to doctoral candidacy, students will be required to submit three research papers per year. These papers will be double-marked, first by the instructor of the course for which they were prepared, then by a second member of the faculty. In cases of discrepancy, the faculty members will meet to discuss the final grade; irresolvable differences will be adjudicated by the director of Graduate Studies. A Student Progress Committee will review every student's progress toward the degree twice a year and report to the Graduate Affairs Committee whether adequate progress is being made. Students deemed not to be making satisfactory progress may be placed on probation or required to leave the program.
Foreign language requirement: For students whose research interests lie in Continental Philosophy, a reading knowledge of both French and German will be required. Students pursuing research in predominantly Anglo-American topics will be required to achieve reading competence in either French or German. Competence in classical Greek or Latin as well in other languages may be used to fulfill the language requirement if deemed appropriate to the research undertaken.
Admission to doctoral candidacy: A student will be recommended to the Graduate School for admission to doctoral candidacy when he or she has: 1) completed the residency requirement; 2) completed all course requirements (excluding PHL 699: Thesis Research) and the submission of required research papers (which shall count as fulfilling the University's qualifying examination requirement); 3) completed the foreign language requirement; and 4) submitted a dissertation proposal (8-10 pages in length, including critical bibliography) acceptable to the student's Dissertation Committee and to the Graduate Affairs Committee.

Candidacy Continuation: registration for resident or non-resident candidacy continuation is required each quarter between admission to candidacy and graduation. Thesis research courses shall also count toward meeting this requirement.

Oral Review: within twelve months following admission to doctoral candidacy, the student must meet with his or her Dissertation Committee for a one hour review of a sample of written work based on the dissertation research (ordinarily a draft version of one or two chapters for the dissertation). This review is meant to provide an opportunity for the Committee and the student to assess the progress of the dissertation and to deal with any difficulties that may be evident at this point. This review will be recorded as pass or fail and must be successfully completed before the student will be allowed to present the completed dissertation for the oral examination.

Completion of the doctoral dissertation, ordinarily of 200-275 pages including scholarly apparatus, and a public oral defense of this work before the Dissertation Committee and the Outside Examiner.

The Dissertation Committee will consist of minimally three members, including a director (who must be a permanent full-time member of the Department) and two readers, at least one of whom must be a DePaul Philosophy Department member. Other members of DePaul faculties, or philosophers and scholars from outside the University, whose expertise is pertinent to the topic of the dissertation may serve as readers upon the consent of the Dissertation Director and the Director of Graduate Studies. There shall also be an External Examiner who will serve as a member of the oral examination board, to be chosen by the Director of Graduate Studies in consultation with the student (who is invited to suggest possible examiners) and the Dissertation Director. The purpose of the External Examiner is to insure that dissertations meet national and international standards, as well as to provide students with an extra-mural source of guidance and support. In all instances of disputed results, the External Examiner will have the last word. However, if the majority of the Dissertation Committee deems the external Examiner's judgment to be incorrect, they may move to dissolve the Committee and to appoint a new External Examiner. Such a move must be approved by a majority vote at a regular departmental meeting.

Submission of a Dissertation Abstract of up to 350 words and filing of the completed final version of the dissertation with the Graduate Division by the required date prior to graduation.

Time Limitations: between admission to the doctoral program and admission to doctoral candidacy: not more than four years; between admission to candidacy and the dissertation defense, not less than eight months, and not more than five years.
Courses

Courses listed in the 300 series provide background or general orientation, and are intended for advanced students in undergraduate philosophy or beginning students in graduate philosophy. All courses carry four quarter hours of credit unless otherwise noted.

Cognitive Skills

301 Basic Logic.
302 Symbolic Logic. (301 recommended, but not required.)
303 Critical Thinking.

History Sequence

310 Greek and Medieval Thought.
312 Modern Thought from Descartes to Hegel.
313 Contemporary Thought from Hegel to Derrida.

Figures and Texts

Each course in this section involves the study of selected texts from the designated periods or areas of philosophy or by the designated authors.

360 Greek Philosophy.
361 Plato.
362 Aristotle.
363 Medieval and Renaissance Philosophy.
364 17th and 18th century Rationalism.
365 17th and 18th century Empiricism.
366 Descartes.
367 The Enlightenment.
368 German Idealism.
369 Kant.
370 Hegel.
371 19th century Philosophy.
372 Marx.
373 Nietzsche.
374 20th century Philosophy.
375 Phenomenology and Existentialism.
376 American Pragmatism.
377 Philosophy and Deconstruction.
378 Analytic Philosophy.
379 Eastern Thought.
380 Selected Figures and Texts.
Philosophical Themes

320 Metaphysics.
321 Epistemology.
322 Philosophy of Language.
325 Basic Concepts of Phenomenology.
327 Topics in Ethics.
328 Topics in Economic, Social, and Political Philosophy.
340 Philosophy of Religion.
341 Aesthetics.
342 Philosophy of Law.
350 Philosophy and the Natural Sciences.
353 Philosophy and History.
354 Philosophy and Psychology.
381 Dramatic Theory: Tragedy.
382 Dramatic Theory: Comedy.
383 Philosophical Themes in Literature.
385 Feminist Theories.
390 Selected Topics and Controversies.
392 Philosophies of Africa

Seminar for Philosophy Majors

391 Seminar for Philosophy Majors.

GRADUATE COURSES

Courses in the 400-690 series deal with individual philosophers, topics, or issues. Normally they are open only to students with graduate academic standing. All courses carry four quarter hours of credit unless otherwise noted.

Traditional Philosophers

410 Plato I. A study of Plato's life and early dialogues.
411 Plato II. A study of the middle and later dialogues.
415 Aristotle I. A study of Aristotle's life and selected topics of his theoretical philosophy: Organon, Physics, Psychology, and Metaphysics.
416 Aristotle II. A study of aspects of Aristotle's practical and productive philosophy: Ethics, Politics, Rhetoric, and Poetics.
420 Augustine. A study of Augustinian philosophy through an examination of some of his major writings.
425 Aquinas. A study of his philosophy, especially its relations to theology, through an examination of selected major works.
435 Descartes. An examination of Descartes' role as the father of modern philosophy: issues of the Regulae, the Discours, and the Meditations.
438 Leibniz. A study of the major philosophical works.
440 Spinoza. A study of the Ethics and/or the Theologico-Political Treatise.
510  **Kant I.** An introduction to the critical philosophy of Kant by concentrating on the Critique of Pure Reason.

511  **Kant II.** A study of the Critique of Practical Reason or the Critique of Judgment.

515  **Hegel I.** An Introduction to Hegel: The Phenomenology of Spirit.

516  **Hegel II.** Readings in the Science of Logic or the Philosophy of Right.

517  **Hölderlin.** An examination of the major theoretical writings, ca. 1797-1804.

518  **Schelling.** An examination of the treatise on human freedom (1809).

520  **Marx.** A study of selected topics and works from both Marx/Engels and their disciples.

### 20th Century Philosophers

**German Philosophers**

525  **Nietzsche.** An introduction to the philosophy of Nietzsche through Beyond Good and Evil. Thus Spake Zarathustra and selected topics and works.

535  **Husserl I.** An introduction to Husserl through a study of selected topics and works.

536  **Husserl II.** Selected topics and works.

540  **Scheler I.** An introduction to Scheler, with emphasis on the phenomenology of value.

541  **Scheler II.** Selected topics and works (Resentment, etc.)

550  **Heidegger I.** An introduction to Heidegger through study of a major work and one of the Marburg lectures.

551  **Heidegger II.** Selected topics and questions.

557  **Topics in Continental Philosophy.**

**French Philosophers**

560  **Marcel.** A study of Marcel’s philosophy of existence with special attention given to his major work, The Mystery of Being.

565  **Merleau-Ponty I.** A study of The Phenomenology of Perception with consideration given to Merleau-Ponty’s place in contemporary philosophy.

566  **Merleau-Ponty II.** A study of the themes of his social philosophy and final ontology.

570  **Sartre I.** A study of Being and Nothingness with attention given to Sartre’s early phenomenological studies as background and to some of his literary works and criticism, such as Nausea and Saint-Genêt.

571  **Sartre II.** The social thought of Jean-Paul Sartre. A study of A Critique of Dialectic Reason along with appropriate literary works and more recent political writings.

575  **Responses to Sade.** An examination of Sade’s writings and responses by such thinkers as de Beauvoir, Lacan, Deleuze, Klossowski, and Blanchot.

585  **Ricoeur.** A study of Ricoeur’s philosophy and phenomenology of the will with stress on its background and its place in contemporary French phenomenology.

586  **Metaphor and Poetic Language.** An examination of Ricoeur’s work in poetics.

587-588  **Reading Levinas I, II.** Discussion of Levinas with Blanchot and Derrida.

589  **Philosophy, Literature, Community.** Discussion of such thinkers as Bataille, Derrida, Jabès, and Nancy.

590  **Trends in Contemporary French Philosophy.** A look at the increasing importance of structuralism, deconstruction, philosophy of language, and hermeneutics in contemporary French thought.
Ethics and Value Studies

513 Theoretical Foundations of Normative Ethics I. A comparative overview of the ethical writings of Aristotle and Aquinas, with emphasis on the natural law tradition.

514 Theoretical Foundations of Normative Ethics II. A comparative overview of Kant's moral theory and Mill's moral theory.

527 Philosophy, Ethics and Economics. An examination of classical and contemporary theories from Smith and Marx to Friedman, Held, and others.

629 Seminar on Contemporary Problems.

639 Seminar on Rawls, Nozick, and the Contractual Tradition. A study of the contract model from its roots in Locke and Rousseau to the work of Rawls and Nozick.

640 Problems in Ethics. (Cross-listed with MLS 462). A seminar in business ethics that centers on theoretical, practical, and pedagogical issues.

641 Seminar on the Continental Tradition in Ethics. A comparative discussion of the ethical theories of Scheler, Hartmann, Brentano, Levinas, etc.

650 Topics in Religious Ethics. A study of religious influences on theoretical and practical ethics.

656 Seminar on Social and Political Thought. A study of selected writings of key social and political thinkers.

660 Seminar in Feminist Ethics. (Cross-listed with MLS 477 and WMS 394). Examination of the care perspective as compared to the justice perspective on moral development.

661 Topics in Feminist Theory. Includes such themes as feminist ontologies, theories of discourse and writing, science and technology, etc.

In addition to the above courses, the Department sponsors a Graduate Student Seminar which meets each week and which all graduate students are expected to attend on a regular basis; here students present their own work to fellow students for discussion.

The above courses represent the core of the Department's graduate offerings. In addition, the Department regularly offers seminars, tutorials, and independent studies for specialized graduate work.

Special Studies Courses


700 Independent Study.

701 Resident Candidacy Continuation. Students admitted to candidacy for the doctoral degree who have completed all course and dissertation registration requirements but who are regularly using the facilities of the University for study and research are required to be registered each quarter of the academic year until the dissertation and final examination have been completed. Non-credit. $388.00 per quarter. (Prerequisite: Admission to candidacy)

702 Non-Resident Candidacy Continuation. This registration provides for doctoral candidates already admitted to candidacy who are not in residence and need only occasional use of University facilities, including the libraries. Non-credit. $40.00 per quarter. (Prerequisite: Admission to candidacy)
Physics

FACULTY
Donald O. Van Ostenburg, Ph.D., Professor and Chair .......... Michigan State University
Anthony F. Behof, Ph.D., Associate Professor .................. University of Notre Dame
Mary L. Boas, Ph.D., Professor Emeritus ...................... Massachusetts Institute of Technology
Richard J. DeCoster II, Ph.D., Assistant Professor ............ University of Iowa
Zuhair M. El Saffar, Ph.D., Professor Emeritus ................. University of Wales, Great Britain
Julius J. Hupert, Ph.D., Professor Emeritus .................... Northwestern University
Gerard P. Lietz, Ph.D., Associate Professor ................... University of Notre Dame
John W. Milton, C.S.V., M.S., Instructor ....................... Saint Louis University
Mark T. Ratajack, Ph.D., Associate Professor .................. Northwestern University
Edwin J. Schillinger, Ph.D., Professor Emeritus ................. University of Notre Dame
Thomas G. Stinchcomb, Ph.D., Professor Emeritus .......... University of Chicago
John R. Thompson, Ph.D., Assistant Professor ................. Georgia Institute of Technology

PURPOSES
The purpose of the Graduate Physics Program is to develop professional competence in its students. To fulfill this purpose, the Department offers the following degree programs: Master of Science in Physics, Master of Science in Applied Physics, and Master of Science in Teaching Physics.

As a public service to the educational, scientific and technological communities of the Chicago area, the Department offers graduate and advanced undergraduate courses in the evenings for industrial scientists and engineers. The evening offerings emphasize the physics and the mathematical skills so necessary for the successful mastery of sophisticated and rapidly changing technologies.

PROGRAMS

Master of Science:
   Physics
   Applied Physics
   Teaching of Physics

MASTER OF SCIENCE: PHYSICS
Admission Requirements
For full admission, students must have the following:
Bachelor's degree: satisfactory completion of a suitable program in advanced physics beyond a general physics course. Candidates with less extensive backgrounds should consult with the chairperson of the Departmental Graduate Committee about course prerequisite(s) to graduate study.
Note: It is strongly recommended that the student submit the results of the GRE Physics examination at the time of application. Results are required for an application for a graduate teaching assistantship.

Two letters of recommendation are recommended for all applicants and required for a graduate teaching assistantship.

Degree Requirements
Courses: a minimum of 44 quarter hours of graduate credit (11 courses), including:

- **PHY 395** Methods of Theoretical Physics III
- **PHY 410** Classical Mechanics I, **PHY 411** Electrodynamics I, **PHY 412** Quantum Mechanics I
- **PHY 480** Thesis Research

Two of the following:

- **PHY 420** Electrodynamics II
- **PHY 440** Classical Mechanics II
- **PHY 460** Quantum Mechanics II

Two 400-level physics courses.

Additional courses from 300 or 400 level. Selection from courses in biological sciences, chemistry, mathematics, physics, or other minor field with the written approval of the Departmental Graduate Committee. The exact number of the additional courses required is dependent upon credit earned from PHY 480 Thesis Research.

Candidate Examination: A three hour written examination based on student's general knowledge of physics.

Degree Candidacy: upon satisfactory completion of the candidacy examination and upon satisfactory completion of all course requirements, excluding PHY 480 Thesis Research, the student may make application for Degree Candidacy. Upon advancing to degree candidacy, the student is eligible to enroll in PHY 480.

Thesis: based on independent research in theoretical or experimental physics is generally required. However, a review thesis reflecting study of a broad subject or development of an interdisciplinary, historical or educational theme is also acceptable.

As a rule, one course credit of 4 quarter hours in PHY 480 is applicable to the thesis research. An additional course credit (4 credit hours) for thesis research may be allowed with the written approval of the student's Faculty Advisor. In no case will more than two thesis research course registrations be applied to the Master of Science degree.

An oral examination on the thesis.

**MASTER OF SCIENCE: APPLIED PHYSICS**

Admission Requirements
The science requirements in the program are the following: Complete sequence of courses in general physics; complete sequence of courses in mathematics including integral calculus.

Degree Requirements
Courses: a minimum of 44 quarter hours of graduate credit (11 courses), including:

- **PHY 395** Methods of Theoretical Physics
- **PHY 410** Classical Mechanics I, **PHY 411** Electrodynamics I, **PHY 412** Quantum Mechanics I
- **PHY 478** Topics in Applied Physics
- **PHY 480** Thesis Research
- **PHY 490, 491** Solid State Physics I, II
Other courses may be substituted for the above with the approval of the Applied Physics Committee.

A choice of the following:

- **PHY 325** Laser Physics
- **PHY 333** Electronic Communication Systems
- **PHY 342** Numerical Methods in Physics
- **PHY 351** Analog Integrated Circuits
- **PHY 352** Digital Signal Processing
- **PHY 362** Solid State Device Physics
- **PHY 363** Integrated Circuit Fabrication
- **PHY 420** Electrodynamics II
- **PHY 442** Computational Physics
- **PHY 454** Fourier Optics
- **PHY 465** Nuclear Physics
- **PHY 466** Radiation Physics
- **PHY 493** Introduction to Nuclear Magnetic Resonance

Additional courses from 300 or 400 level. Selection from courses in biological sciences, chemistry, mathematics, computer science or other minor fields with the written approval of the Applied Physics committee. The exact number of the additional courses required is dependent upon credit earned from PHY 480 thesis research.

Thesis: The thesis requirement is the same as Master of Science: Physics.

**MASTER OF SCIENCE: TEACHING OF PHYSICS**

**Admission Requirements**

The same as the requirements for Applied Physics. Students must be certified teachers for admission to the degree program.

**Degree Requirements**

Eleven four-hour courses or equivalent planned in individual consultation with a faculty member. These may include some allied field offerings. A final paper is required.

**Courses**

**ADVANCED UNDERGRADUATE COURSES**

The following list represents courses scheduled as undergraduate courses. To be used as graduate credit, a grade of B or better must be earned.

- **310** Mechanics.
- **320** Electricity and Magnetism.
- **325** Laser Physics.
- **331** Active Circuits.
- **333** Electronic Communication Systems.
- **340** Thermal Physics.
- **342** Numerical Methods in Physics.
350 Optics.
351 Analog Integrated Circuits.
352 Digital Signal Processing.
360 Modern Physics I.
361 Modern Physics II.
363 Integrated Circuit Fabrication.
380, 381, 382 Experimental Physics I, II, III. (2 hours each.)
393 Methods of Theoretical Physics I.
394 Methods of Theoretical Physics II.
395 Methods of Theoretical Physics III.
396 Microprocessors.
397 Computer Interfacing.

GRADUATE COURSES

These courses carry, as a rule, four quarter hours of credit. When a deviation from this rule is justified, the applicable number of credit hours is shown in the specific schedule applicable to the academic quarter in question. Scheduling of courses is announced quarterly.

405 Physical Principles of Telecommunications. This course intended for non-majors treats the basic concepts of Physics on which communications are based, such as basic electricity, circuit elements, transmission lines, and fibers. Included will be a discussion of combinational and sequential digital circuits. The format consists of lecture and laboratory exercises. (Prerequisite: Mathematics 151 or equivalent.)

410 Classical Mechanics I. Lagrangian formalism; angular momentum; central forces and celestial mechanics; particle systems and rigid body rotation about fixed axis; accelerated coordinate systems. (Prerequisite: 395 or equivalent.)

411 Electrodynamics I. Electrostatics and magnetostatics in vacuum and in media; Poisson's equations; Green's Theorem; use of Green's functions; electromagnetic induction; Maxwell's equations; the Poynting vector; electromagnetic wave propagation. (Prerequisite: 395 or equivalent.)

412 Quantum Mechanics I. Schroedinger equation, operators, eigenvalues; series of eigenfunctions; physical interpretation; one and three-dimensional applications. (Prerequisite: 395 or equivalent.)

420 Electrodynamics II. Further studies of electromagnetic wave propagation; scattering; dispersion; bounded structures and guided waves; electromagnetic, radiation, including multipole radiations and radiation from systems of radiators; special theory of relativity as applied to electrodynamics; charged particle collisions and radiations. (Prerequisite: PHY 411.)

424 Electrodynamics of Plasma. Introduction to plasmas; single particle motions in electric and magnetic fields; treatment of plasmas as fluids; electrodynamic properties of plasmas. (Prerequisite: PHY 411.)

440 Classical Mechanics II. Variational principles; Lagrangian and Hamiltonian mechanics; rigid body dynamics; small oscillations; special relativity theory; canonical transformations; Hamilton-Jacobi theory. (Prerequisite: PHY 410.)

442 Computational Physics. Contemporary Topics in physics are examined via numerical solutions. Calculations using an interactive approach and graphical representation are used extensively.
**Statistical Mechanics.** Principles of statistical mechanics; applications to weakly interacting systems such as the classical plasma and Fermi gas; strongly interacting systems; transport theory; fluctuations and irreversible processes, phase transitions.

**Fourier Optics.** Fourier Optics and optical processing of information. Topics include diffraction theory, optical transfer functions and holography. The Fourier Transform, Discrete Fourier Transform and Fast Fourier Transform are used extensively.

**Fiber Optics.** Dielectric wave guides, solution of the Maxwell equations for a cylindrical fiber wave guide, transverse modes, graded-index and birefringent fiber, current topics in nonlinear effects in fiber and their relevance to optical communication systems.

**Quantum Mechanics II.** Review of basic quantum theory; vector spaces; linear operators; observables; commutators; projection operations; representations; angular momentum theory; systems of identical particles: invariance. (Prerequisite: PHY 412.)

**Nuclear Physics.** Theoretical and phenomenological approaches to nuclear structure and strong, electromagnetic, and weak interactions of nuclei. Topics of study include the theory of scattering and decay of nuclei, resonances, nuclear models. (Prerequisite: PHY 412 or equivalent.)

**Radiation Physics.** Interactions of X-rays, nuclear radiations, etc. with matter; radiation detectors; dosimetry; shielding; applications to medical physics. (Prerequisite: PHY 361 and 395 or equivalent.)

**Solid State Physics I.** Periodicity and classification of crystal structure; X-ray diffraction; reciprocal lattice; crystal binding; phonons. Debye theory of heat capacity; inelastic scattering, anharmonic interactions and thermal conductivity.

**Solid State Physics II.** The free-electron gas model; energy band theory; theory of metals and alloys; intrinsic and impure semiconductors; transport phenomena; dia- and para-magnetism, ferromagnetism, and antiferromagnetism; superconductivity.

**Introduction to Nuclear Magnetic Resonance.** The resonance condition, absorption lines, free induction decays, theory of relaxation phenomena, imaging. (Prerequisites: PHY 393, 360).

**Seminars and Independent Study Courses**

**Topics in Applied Physics.** This course number is reserved for individual study at the graduate level. Special seminars organized from time to time to accommodate the needs of groups of students in specialized subjects of topical interest.

**Thesis Research.** This course number designates research performed to gather thesis material. Up to two registrations are allowed. (No less than four hours, no more than eight hours credit total.)

**Candidacy Continuation.** Required of all students who are not registered for regular courses but who occasionally utilize University facilities (computer lab and library) during completion of course requirements and/or research. Non-credit. $40.00 per quarter.
Graduate Courses for Master of Science in the Teaching of Physics

These courses are offered by arrangement.

400 Classical Mechanics for Teachers. Concepts and materials for teaching high school physics.

401 Electricity and Magnetism for Teachers. The principles of electricity and magnetism, including electric circuits.

402 Atomic and Nuclear Physics for Teachers. This course provides a broad perspective of the field.

403 Topics in Physics Teaching. Selected topics for high school teachers. May be taken more than once.

404 Optics for Teachers. Geometrical and physical optics from the perspective of high school teaching. Applications to photography and holography.

406 Vibrations, Waves and Sound for Teachers. Techniques for teaching high school science including musical acoustics and sound reproduction.
Psychology

FACULTY
Sheldon Cotler, Ph.D., Professor and Chair ............................................. Southern Illinois University
Karen S. Budd, Ph.D., Associate Professor ............................................. University of Kansas
Linda A. Camras, Ph.D., Professor ....................................................... University of Pennsylvania
Douglas Cellar, Ph.D., Assistant Professor ............................................. University of Akron
Ralph Erber, Ph.D., Assistant Professor ................................................ Carnegie Mellon University
Stephen Goldston, Ed.D., Visiting Professor ......................................... Columbia University
Jane Halpert, Ph.D., Assistant Professor ................................................ Wayne State University
Frederick H. Heilizer, Ph.D., Associate Professor ................................ University of Rochester
Leonard A. Jason, Ph.D., Professor ....................................................... University of Rochester
Reinaldo Matias, Ph.D., Assistant Professor ........................................... University of Pittsburgh
George F. Michel, Ph.D., Assistant Professor .......................................... Rutgers University
David Nygren, C.M., Ph.D., Assistant Professor ..................................... Boston University
Sheila C. Ribordy, Ph.D., Professor ........................................................ University of Kansas
W. LaVome Robinson, Ph.D., Associate Professor ................................. University of Georgia
Alice Stuhlmancher, Ph.D., Assistant Professor ....................................... Purdue University
Derise E. Tolliver, Ph.D., Assistant Professor .......................................... Duke University
Robert J. Tracy, Ph.D., Associate Professor ........................................... Texas Christian University
Roderick J. Watts, Ph.D., Assistant Professor ........................................ University of Maryland
Midge Wilson, Ph.D., Associate Professor ............................................. University of North Carolina
Edwin S. Zolik, Ph.D., Professor Emeritus ............................................. Catholic University of America

ADJUNCT FACULTY
Betty Burrows, Ph.D. ................................................................................. DePaul University
Robert W. Cavanagh, Ph.D. ..................................................................... Loyola University
Daniel Conti, Ph.D. ................................................................................... DePaul University
Della Corriss, A.C.S.W. ............................................................................ University of Illinois at Chicago
Joseph A. Orban, Ph.D. ............................................................................. Virginia Polytechnic & State University
Catherine Pines, Ph.D. ............................................................................... Emory University
Lisa Razzano, Ph.D. ................................................................................... DePaul University
William Terris, Ph.D. ................................................................................ Illinois Institute of Technology
Patrick Tolan, Ph.D. .................................................................................... University of Tennessee
Miriam Ukeritis, C.S.J., Ph.D. ................................................................. University of Pittsburgh

PURPOSES
The general purpose of the graduate programs in psychology is to provide qualified students with the opportunity to become thoroughly acquainted with the methodology and content of scientific psychology and trained in the quantitative methods and scientific rigor necessary for the understanding of human behavior and personality.

A specific purpose is application: the utilization of psychology for the benefit of individuals and society. A major function of the graduate programs in psychology is to help the student develop an awareness of the unity of psychological study and practice. The student comes to appreciate that psychology is both a "pure" and "applied" science, and that these aspects are not mutually exclusive.
PROGRAMS

The Department of Psychology offers graduate work leading to the degrees of Master of Arts and Doctor of Philosophy. The M.A. is not a terminal degree; it leads directly to the Ph.D. Students are not admitted for the M.A. program only. Available programs leading to graduate degrees are as follows:

Master of Arts/Doctor of Philosophy

Clinical Psychology
Experimental Psychology
Industrial/Organizational Psychology

Application materials for the psychology graduate programs may be obtained by writing to the Department of Psychology.

Admission Requirements

The Department accepts as graduate students only those who show definite promise for completing the requirements for advanced degrees. Meeting the minimum admission standards or having extensive undergraduate course work in psychology does not guarantee acceptance, since the number of applicants who can be admitted is limited.

Preference is given to those applicants who have a well-balanced background of psychology courses and some background in science and mathematics. Students who do not have an undergraduate major in psychology but who otherwise satisfy these requirements may apply.

For consideration for admission, the applicant must have the following:

Bachelor's degree.
Satisfactory undergraduate scholastic average.
Minimum of 32 quarter hours (i.e., 24 semester hours) in psychology. A 3 semester hour (4 quarter hour) elementary statistics course is to be included in this minimum, as well as a course in experimental psychology. A course in History and Systems should also be considered.

The Departmental Graduate Admission Committee will determine, on the basis of a consideration of each student's proposed program of study, whether the minimum 32 quarter hours in psychology is sufficient for advanced study. The student judged to be deficient in prerequisites or other respects will be required to take, without graduate credit, such courses as necessary to remedy any deficiencies before entering Graduate School.

Graduate Record Examination results of the Verbal and Quantitative tests and of the Advanced Test in Psychology are required.

Three letters of recommendation.

Applicants must complete both a departmental application form and the general LA&S Graduate Application.
Students considering application to the M.A.-Ph.D. programs in Clinical Psychology should be aware of the following:

Approximately 400+ students applied to the doctoral program in clinical psychology. Of the applicants, 12 students were offered admission. The clinical faculty wishes applicants to know that the faculty carefully evaluate all the application materials and emphasize the following criteria:

Completeness of credentials: When important pieces of information, such as transcripts, are lacking, the faculty is compelled to reject the application. Approximately one applicant in seven is rejected on this basis. Application materials should be complete by January 31. The process of evaluating applications begins in February.

GRE scores and Grade Point Average: Combined Verbal and Quantitative GRE scores of about 1200 are expected of applicants to the doctoral program. The undergraduate grades of applicants are expected to average substantially higher than 3.0 in psychology courses. Typically, successful applicants to our program have an undergraduate GPA of at least 3.5 (B+) and combined GRE scores of over 1200. However, these criteria are not followed rigidly.

Undergraduate preparation: Students are expected to have had courses in statistics, experimental psychology, abnormal psychology, and other areas in psychology to enable advanced study in this field.

Prior graduate study: The department considers students with prior graduate study in clinical psychology or closely related fields, but almost all of our students enter the program without other advanced degrees. Minimal credit is available for prior graduate work.

Interests: The clinical programs emphasize training in clinical child psychology and clinical community psychology. Obviously those who have no special interest in those areas would be better served elsewhere. Further, we accept only those applicants who intend to work toward the doctorate and do not consider applicants for a terminal Master's degree.

Minority status: The clinical faculty strongly encourages applications from minority students. About ¼ of the graduate students in clinical psychology admitted in the last 3 years were members of minority groups.

MASTER OF ARTS: CLINICAL PSYCHOLOGY

Degree Requirements

Courses: minimum of 72 quarter hours including 4 hours of thesis credit, but not including credit for pre-practicum or practicum courses. (Note: Students are expected to carry a minimum of 12 hours per quarter.)

Core Courses: Four of the following:

PSY 402 Perceptual Processes or 404 Learning Processes
PSY 406 Physiological Processes
PSY 430 Advanced Social Psychology
PSY 437 Advanced Personality or 439 Advanced Developmental Psychology

Statistics and Methodology Courses:

PSY 410, 411, 420 Advanced Statistics I, II, Advanced Research Methodology
Additional Courses

PSY 481 Intelligence Testing
PSY 482 Personality Assessment
PSY 483 Advanced Psychodiagnostic
PSY 484 Behavioral Assessment
PSY 486 Advanced Psychopathology
PSY 487 Psychopathology of the Child
PSY 488 Principles of Psychotherapy
PSY 493 Clinical Community Psychology
PSY 500 Professional Ethics and History of Clinical Psychology
PSY 574 Pre-practicum
PSY 577-583 Practicum

Degree Candidacy: during the Winter Quarter of the second year of graduate study, each student is evaluated for acceptance as a candidate for the doctoral degree. Only those students who have given evidence of satisfactory academic performance as graduate students, and have had a research proposal for the master’s thesis approved, will be advanced. The Department reserves the right to require the student to take special or oral examinations to fulfill this requirement. Students denied candidacy will be required to withdraw from the program or withdraw after completion of the M.A.

Research Thesis: complete a thesis on a topic approved by the Department.

Thesis Examination: the examination, in the field of the graduate student, may be, but is not necessarily, limited to a defense of the student's thesis.

Clinical Practicum: Six quarters of clinical practica need to be successfully completed. The Director of Clinical Training needs to approve in advance the practicum placement.

MASTER OF ARTS: EXPERIMENTAL PSYCHOLOGY

Degree Requirements

Courses: minimum of 48 quarter hours including 4 hours thesis credit. (Note: Students are expected to carry a minimum of 12 hours per quarter.)

Core Courses: four of the following six courses:
- PSY 402 Perceptual Processes
- PSY 404 Learning Processes
- PSY 406 Physiological Processes
- PSY 430 Advanced Social Psychology
- PSY 437 Advanced Personality
- PSY 439 Advanced Developmental Psychology
- PSY 500 Professional Ethics and History of Psychology (required of everyone)

Statistics and Methodology Courses:

Four courses: PSY 410, 411, 418, 420, Advanced Statistics I, II, Multiple Regression and Multivariate Analysis, Advanced Research Methodology

Degree Candidacy: during the Winter Quarter of the second year of graduate study, each student is evaluated for acceptance as a candidate for the doctoral degree. Only those students who have given evidence of satisfactory academic performance as graduate students will be advanced. The Department reserves the right to require the student to take special or oral examinations to fulfill this requirement. Students denied candidacy will be required to strengthen areas of scholastic weakness before continuing in the Ph.D. program.

Research Thesis: complete a thesis on a topic approved by the Department.

Thesis Examination: either written or oral, the examination, in the field of graduate study, may be, but is not necessarily, limited to a defense of the student’s thesis.
MASTER OF ARTS: INDUSTRIAL PSYCHOLOGY
Degree Requirements

Courses: minimum of 72 quarter hours including 4 hours thesis credit. (Note: Students are expected to carry a minimum of 12 hours per quarter)

Core Courses: four of the following (must include 404 and 430):
- PSY 402 Perceptual Processes
- PSY 404 Learning Processes
- PSY 406 Physiological Processes
- PSY 430 Advanced Social Psychology
- PSY 437 Advanced Personality
- PSY 439 Advanced Developmental Psychology

Statistics and Methodology Courses:
Three courses: PSY 410 411, 420, Advanced Statistics I, II. Advanced Research Methodology

Core Courses in the Industrial Psychology Area:
- PSY 440 Psychology of Work and Motivation
- PSY 441 Psychology of Leadership
- PSY 442 Personnel Psychology
- PSY 444 Performance Appraisal
- PSY 445 Advanced Training and Development in Organizations
- PSY 446 Psychological Theories of Organizations
- PSY 447 Organizational Consultation
- PSY 448 Job Analysis and Professional Ethics
- PSY 559 Seminar in Industrial/Organizational

Other Required Courses: Additional courses are required to attain the 72 hours, including Psychology 590, Thesis Seminar. These courses should be taken with the consent of the student's advisor.

Degree Candidacy: during the Winter Quarter of the second year of graduate study, each student is evaluated for acceptance as a candidate for the doctoral degree. Only those students who have given evidence of satisfactory academic performance as graduate students, and have had a research proposal for the master's thesis approved, will be advanced. The Department reserves the right to require the student to take special or oral examinations to fulfill this requirement. Students denied candidacy will be required to withdraw from the program or withdraw after completion of the M.A.

Research Thesis: complete a thesis on a topic approved by the Department.

Thesis Examination: either written or oral, the examination, in the field of graduate study, may be, but is not necessarily, limited to a defense of the student's thesis.

DOCTOR OF PHILOSOPHY: PSYCHOLOGY

The Department offers doctoral programs in Clinical, Experimental, and Industrial/Organizational Psychology. The Clinical Program offers special emphasis in Clinical Community or Clinical Child Psychology. Within the Experimental Program, the areas of concentration are quantitative methods, and social psychology, although an innovative course of study could be developed in consultation with an advisor.

Admission Requirements

Students holding a bachelor's degree are not admitted directly into doctoral programs. During the second week of the Winter Quarter of the student's second year, an evaluation of the student's progress in meeting course and degree requirements is made by the faculty. Assuming such progress is satisfactory, the student is formally admitted into the doctoral program.
DOCTOR OF PHILOSOPHY: CLINICAL PSYCHOLOGY

Degree Requirements

Courses: minimum of 120 quarter hours beyond the bachelor's degree, including the following:

Core Courses:

PSY 361 History and Systems of Psychology or passing a special exam in this area
PSY 402 Perceptual Processes or 404 Learning Processes
PSY 406 Physiological Processes
PSY 410, 411, 420
PSY 418 or 419
PSY 430 Advanced Social Psychology
PSY 437 Advanced Personality or 439 Advanced Developmental
PSY 481 Intelligence Testing
PSY 482 Personality Assessment
PSY 483 Advanced Psychodiagnostics
PSY 484 Behavioral Assessment
PSY 486 Advanced Psychopathology
PSY 487 Psychopathology of the Child
PSY 488 Principles of Psychotherapy
PSY 493 Clinical Community Psychology
PSY 500 Professional Ethics and History of Clinical Psychology (2 hours)
PSY 569 Seminar in Program Evaluation
PSY 596 Internship (0 hours)
PSY 597 Master's Thesis Research (4 hours)
PSY 599 Dissertation Research (12 hours)

Clinical Practicum: See M.A. requirements.

Note: The student is required to take additional courses consistent with an area of specialization in Clinical Child or Clinical Community Psychology.

Doctoral Candidacy Examination: designed to assess the student's general knowledge of clinical and experimental psychology and the student's area of specialization (child or community). The examination is given in four sections. Two sections cover two minor areas of experimental psychology selected by the student from the areas of learning, perception, physiological psychology, statistics, personality, developmental psychology, industrial/organizational psychology, and social psychology. A third section for clinical students consists of an examination in the areas represented by the required courses in Clinical Psychology. A fourth section consists of an examination in the student's area of clinical child or clinical community specialization.

Admission to Doctoral Candidacy: Formally given to the student who has successfully passed the Doctoral Candidacy Examination; the student has no more than five years from this date to complete requirements for the doctorate.

Candidacy Continuation: registration in course(s) or resident or non-resident candidacy continuation required each quarter between admission to candidacy and graduation.

Internship: one-year internship in facility approved by the Director of Clinical Training. Student's fourth or fifth year in the program is usually the internship year.

Dissertation: Departmental Committee approval and acceptance of topic and outline of dissertation given only after admission to candidacy approved.

Oral Examination: student to defend his or her dissertation and to show competence in the general field of psychology and in the area of specialization of the dissertation.

Time Limitations: 1) between admission to the doctoral program and admission to doctoral candidacy: not more than four years; and 2) between admission to candidacy and the final doctoral oral examination: not less than eight months and not more than five years.
DOCTOR OF PHILOSOPHY: EXPERIMENTAL PSYCHOLOGY

Areas of Specialization

There are two areas of specialization in the program: social cognition and quantitative methods. Students may also develop their own specialization by combining one of the two specialities with another experimental area in which a faculty member has expertise, or with industrial/organizational or clinical psychology.

A goal of the program of social cognition is to present an integrated interpretation of humans as social, emotional and cognitive beings. Within this framework, traditional approaches to cognition, emotion, personality, social, and developmental psychology are re-examined. A unifying theme is that humans construct interpretations of themselves and reality based on relationships with others. These interpretations and how they govern conscious and unconscious behaviors comprise the study of social cognition.

A goal of the quantitative methods program is to train the student in the techniques required for sophisticated research application. This includes comprehensive understanding of methodological design, statistical analysis of data, and the use of computers in research. The program incorporates these skills within a major content area in psychology, and thereby qualifies the student to work in a broad range of academic, clinical, and business settings.

Degree Requirements

Courses: a minimum of 120 quarter hours beyond the bachelor's degree, including the following:

Core Courses:
- PSY 402 Perceptual Processes
- PSY 404 Learning Processes
- PSY 406 Physiological Processes
- PSY 430 Advanced Social Psychology
- PSY 437 Advanced Personality
- PSY 439 Advanced Developmental Psychology
- PSY 500 Professional Ethics and History of Psychology

Statistics and Methodology:
- PSY 410 Advanced Statistics I
- PSY 411 Advanced Statistics II
- PSY 418 Multiple Regression and Multivariate Analysis
- PSY 420 Advanced Research Methodology

Computer Statistics:
A computer data analysis course such as Computer Science 323/423 or 424.
- PSY 588 Topics in Experimental Psychology
- PSY 589 Practicum in Experimental Psychology
- PSY 597 Master's Thesis Research (4 hours)
- PSY 599 Dissertation Research (12 hours)

Social Cognition:
Basic:
- PSY 435 Psychology of Interpersonal Relationships
- PSY 555 Social and Emotional Development
- PSY 556 Seminar in Social Psychology
- PSY 557 Seminar in Learning and Cognitive Processes
- PSY 560 Social Cognition

Advanced:
- PSY 520 Principles of Human Diversity
- PSY 561 Advanced Psychology of Women
- PSY 563 Mental Imagery
- PSY 572 Psychobiology of Social Cognition
Quantitative Methods:
Statistics:
PSY 419 Factor Analysis
PSY 413 Time Series
PSY 414 Nonparametric and Log Linear
PSY 558 Seminar in Advanced Statistics
Research Methodology:
PSY 450 Psychological Measurement
Two of the following courses:
PSY 481 Individual Intelligence Testing
PSY 482 Personality Assessment
PSY 495 Evaluation and Research in Community Psychology
Computer Programming:
At least two computer programming courses.

Research experience is considered an integral part of the student's training and will begin in the first year. With the help of the advisor, the student will begin to plan a thesis project which usually will be conducted during the second year in the program. Research experience during the third year might involve a continuation of the line of research initiated in the thesis project. Alternatively the student may begin to develop a new line of research in preparation for his or her dissertation. The dissertation project usually is conducted during the fourth year. Typically the graduate student would conduct at least two complete research studies and prepare them for publication in a professional journal.

Doctoral Candidacy Examination: designed to assess the student's knowledge of experimental psychology and the student's area of specialization. The examination is given in three sections. The first two sections cover two minor areas selected by the student from the areas of learning, perception, physiological, personality, developmental, statistics, and social psychology. The third section consists of an examination in the student's area of specialization.

Admission to Doctoral Candidacy: Formally given to the student who has successfully passed the Doctoral Candidacy Examination; the student has no more than 5 years from that date to complete requirements for the doctorate.

Candidacy Continuation: registration in course(s) or for resident or non-resident candidacy continuation required each quarter between admission to candidacy and graduation.

Dissertation: Departmental Committee approval and acceptance of topic and outline of dissertation given only after admission to candidacy approval. Research for the dissertation should normally be completed during the student's fourth year in the program.

Oral Examination: student to defend his or her dissertation and to show competence in the general field of psychology and in the area of specialization.

Time Limitations: 1) between admission to the doctoral program and admission to doctoral candidacy: not more than four years; and 2) between admission to candidacy and the final examination: not less than eight months and not more than five years.

DOCTOR OF PHILOSOPHY: INDUSTRIAL/ORGANIZATIONAL PSYCHOLOGY
Degree Requirements
Courses: a minimum of 120 hours beyond the bachelor's degree, including twelve dissertation hours and the following:
Core Courses: Four core courses plus either a course in history and systems or passing a special exam in this area. The core courses must include Psychology 404 Learning Processes and Psychology 430 Advanced Social Psychology and any two of the remaining core courses.


Industrial Psychology Courses: All core courses in the I/O area: PSY 440, 441, 442, 444, 445, 446, 447, 448, 559.

Electives: Additional courses with consent of the student's advisor to attain the required 120 credit hours. Electives are grouped into two areas: methods and content. At least one course must be taken in each area. Method courses include Math 454, 456, 457; Computer Science 423, 424, and 432. Content courses include Management 526, 560; Marketing 545; Psychology 425, 434, and 443.

Doctoral Candidacy Examination: designed to assess the student's knowledge of psychology and the student's area of specialization. The examination is given in four sections. The first two sections cover two minor areas selected by the student from the areas of learning, statistics, perception, physiological, personality, developmental and social psychology. The third section consists of an examination in the areas represented by the required courses in industrial/organizational psychology. The fourth section is an oral examination in the area of I/O psychology.

Admission to Doctoral Candidacy: Formally given to the student who has successfully passed the Doctoral Candidacy Examination; the student has no more than 5 years from that date to complete requirements for the doctorate.

Candidacy Continuation: Course(s) or registration in resident or non-resident candidacy continuation required each quarter between admission to candidacy and graduation.

Dissertation: Departmental Committee approval and acceptance of topic and outline of dissertation given only after admission to candidacy approval. Research for the dissertation should normally be completed during the student's fourth year in the program.

Oral Examination: student to defend his or her dissertation and to show competence in the general field of psychology and in the area of specialization.

Time Limitations: 1) between admission to the doctoral program and admission to doctoral candidacy: not more than four years; and 2) between admission to candidacy and the final examination: not less than eight months and not more than five years.

Note: Detailed information on the above degree requirements is listed in a separate departmental brochure. It may be obtained from the department.

Courses

All courses carry four quarter hours of credit unless otherwise noted.

COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

333 Child Psychology. Description and evaluation of principles and theories of development from conception through childhood. (Prerequisite: PSY 105 or 106.)

334 Adolescent Psychology. Biological, cognitive, emotional, and social development. Covers theories and research on normal and abnormal development during adolescence. (Prerequisite: PSY 105 or 106.)
Psychology of the African-American Child. (Cross-listed with PSY 521) Development and socialization of African-American child from infancy to adolescence. Emphasis on psychological and cultural factors which influence these processes. Understanding the child, family and the child, language and IQ, education and learning styles, and cultural identity are all emphasized. (Prerequisite: 105 or 106.)

Social Psychology. Survey of social psychological principles emphasizing individual behavior in a social context. (Prerequisite: PSY 105 or 106.)

Social Cognition. (Cross-listed with PSY 560). Survey of research on attribution theory and biases, schematic processing and stereotyping, and the role of attention and memory in impression formation and social perception. (Prerequisites: 105 or 106, and 347.)

Theories of Personality. Survey of major personality theories with separate emphasis on clinically-derived and research-derived theories. Freudian psychoanalysis is especially emphasized in the clinical area. Personality research philosophy is presented separately and as part of the research-derived theories. (Prerequisite: PSY 105 or 106.)

Abnormal Psychology. Description of the nature, symptoms, and etiology of psychological disorders. (Prerequisite: PSY 105 or 106.)

Community Psychology. Systemic and ecological theories of human behavior. Focus on community effects on individuals and community as a psychological concern. Also consideration of topics such as prevention and social level interventions. (Prerequisite: PSY 105 or 106.)

Small Groups and Leadership. Study of behavior of individuals in groups and the analysis of leadership styles as a function of the type of task and group structure. (Prerequisite: PSY 347 or PSY 380.)

Introduction to Psychological Measurement. Measurement in psychology; emphasis on standardization, reliability, validity; test and scale development. Materials fee $5.00. (Prerequisites: PSY 105 or 106 and 240.)

Theories of Learning. A survey of the classical and modern theories of learning. (Prerequisites: PSY 105 or 106.)

History and Systems of Psychology. Historical development of psychology and its fields. (Prerequisite: PSY 105 or 106 or consent.)

Cognitive Process. A survey of modern cognitive psychology with major emphasis on Information Processing theory. (Prerequisite: PSY 105 or 106.)

Alcoholism, Drug Addiction and Recovery. Survey of major research findings in the area of alcoholism and drug addiction. Description of treatment programs for recovery and explorations of drug-free ways to alter consciousness. (Prerequisite: 105 or 106.)

Behavior Problems of Children. Factors associated with deviance in children and adolescents. Examination of personal and social consequences. Review treatment programs for children. (Prerequisite: PSY 105 or 106.)

Psychology of Exceptional Children. Comprehensive introduction to the study of special children—those children who do not reach their fullest potential because of physical, social, cognitive, or behavioral factors. (Prerequisite: PSY 105 or 106.)

Social and Emotional Development. This course focuses on the development of emotions, social relationships and social interaction. Both theoretical perspectives and research findings are presented and analyzed. Topics to be covered may include: primary emotions and their development, nonverbal communication of emotion, socialization within the family, friendship and peer relations, aggression, moral development, sex role development, and attachment.
Research Methods in Social Psychology. Laboratory fee $5.00. Overview of methods and associated problems unique to conducting research with humans, both in the laboratory and the field. (Prerequisite: PSY 347 or equivalent.)

Perception. Environmental and stimulus control of behavior; chemical control of perception. (Prerequisite: PSY 105 or 106.)

Physiological Psychology. The nervous system and endocrine functions as related to behavior. (Prerequisite: PSY 105 or 106.)

Comparative Psychology. Patterns of behavior shown by various animal species. (Prerequisite: PSY 105 or 106.)

Industrial and Organizational Psychology. Application of theories and methods of psychology to the study of human behavior in business, industrial, and other organizations. (Prerequisites: PSY 105 or 106.)

Personnel Psychology. Application of concepts from differential psychology and measurement to employee selection, performance appraisal, placement and training in business and other organizations. (Prerequisite: PSY 380 or consent.)

Organizational Behavior. Application of theories in leadership, work and motivation, and job satisfaction to employee and management behavior. Applied social psychology in an organizational context. (Prerequisite: PSY 380 or consent.)

Engineering Psychology. (Cross-listed with PSY 443). Application of experimental psychology and individual differences to the design of man-machine systems, work environments, and living environments. (Prerequisites: PSY 380 or consent.)

Consumer Behavior and Advertising. Application of psychological principles and methods to advertising, marketing, product development, sales, and propaganda. (Prerequisite: PSY 380 or consent.)

Training and Development in Organizations. Issues related to training in industry and other organizations. Such topics as needs assessment, training program design, and program evaluation will be covered, along with relevant ethical, social, and economic issues. (Prerequisite: PSY 380 or consent.)

Applied Research Methods for the Behavioral Sciences. Applied inferential statistics. (Prerequisite: PSY 240 or equivalent.)

Psychology of Alienation. Causes of individual and group alienation, and the resultant behavior. (Prerequisites: PSY 105 or 106.)

Psychology of Language. Development of language in children, and effects of language on thinking. (Prerequisite: PSY 105 and 106.)

Advanced Topics in Psychology. (Prerequisites: Senior standing and consent of Chairman.)

Field Work and Study. Supervised experience in selected off-campus settings and associated readings. (Prerequisite: Junior standing and consent of Chairman.)

Reading and Research. (Prerequisites: Advanced standing and consent of Chairman.)

GRADUATE COURSES

When prerequisites are stated in numbers below 400, an equivalent course taken elsewhere is acceptable. Where no prerequisite is listed, students not majoring in psychology must obtain the consent of the instructor. Psychology majors who do not meet the prerequisites for a given course must obtain the consent of the instructor.

Perceptual Processes. Analysis of the variables involved in the determination of perception with particular attention to the problems of space, motion, distance, size, form, the aftereffects and the constancies.
Learning Processes. Survey of classical and instrumental conditioning, biological constraints, attention, memory, and practical applications. Major theoretical approaches include stimulus-response, early cognitive theories and information processing theory.

Physiological Processes. The functional role of neural systems important for the processes of motivation, emotion, sleep, memory, and cognition.

Statistics for the Behavioral Sciences. Applied inferential statistics. (Prerequisite: PSY 240.)

Advanced Statistics I. An introduction to sample spaces, random variables, distributions and parametric statistics. Sampling, the concept of sampling distributions of statistics.

Advanced Statistics II. Point estimation procedures are compared for a variety of parameters. Analyses of variance; planned and post-hoc contrasts; orthogonal polynomials. Linear and non-linear regression and correlation. (Prerequisite: PSY 410.)

Time Series. Study of variation across a discrete or continuous dimension of "time." Two approaches will be taken: time-domain and frequency-domain analyses. Descriptive and inferential techniques will be presented. Bivariate time-series analysis will be stressed.

Nonparametric and Log Linear. Logic and application of distribution-free techniques and log-linear approaches to the analysis of qualitative data.

Methods in Behavioral Research. Principles and techniques of research design in behavioral, social and clinical research; questionnaires, interview schedules, rating scales involving multivariable analysis. Application of parametric and non-parametric tests. Application of research findings to professional practice.

Multiple Regression and Multivariate Analysis. Techniques for the analysis of multiple independent and/or dependent measures. Multiple regression, canonical correlation, multivariate analysis of variance, linear discriminant function analysis.

Factor Analysis. Theoretical foundations, methods of analysis, and comparison of various factor analytic models, both exploratory and confirmatory.

Advanced Research Methodology. Design and analysis of basic and applied psychological research with an emphasis on statistical software.

Advanced Experimental Design.

Instrumentation. Design, construction and use of instrumentation in the behavioral sciences. (Variable credit)

Advanced Social Psychology. Advanced study of social psychological methodology, ethics and deception, attitudes, altruism, aggression, and interpersonal processes and attraction.

Attitude Analysis. Theory and research in attitude formation and organization, communication and persuasion, resistance to persuasion, and measurement techniques.

Social Judgment. Theory and research in judgment of social stimuli, perceiving and evaluating persons, and social comparison processes.

Small Group Behavior. Theory and research in goal formation, conformity, power and communication structures, cohesion, and task performance. The emphasis is on the behavior of persons within groups.

Psychology of Interpersonal Relationships. (Cross-listed with PSY 317). Overview of psychological issues in the study and understanding of interpersonal relationships outside the home and family and such processes as acquaintance, friendship, and status-determined associations.
437 **Advanced Personality.** Critical analysis of research in personality with emphasis on the development and testability of major constructs in contemporary research.

439 **Advanced Developmental Psychology.** Current research and theories in child development relating to the preschool child, elementary school child, and adolescent. Emphasis on cognitive, language, and social/emotional development.

440 **Psychology of Work and Motivation.** Current research and theories in organizational psychology relating to motivation, job satisfaction, work attitudes, employee withdrawal, and counterproductivity.

441 **Psychology of Leadership.** Current research and theories in organizational psychology relating to leadership, supervision, job performance, and managerial training. Emphasis is on theoretical development and empirical evaluation of constructs in contemporary research.

442 **Personnel Psychology.** Contemporary methods in the testing, selection, placement, and appraisal of persons in an organizational setting. Emphasis on methodological techniques and legal ramifications on personnel practices.

443 **Psychology of Human Performance.** (Cross-listed with PSY 383.) Survey of research and theory on basic psychological processes relevant to the study of man-machine interaction and human factors design. Emphasis is on the use of course content in practical settings through projects on the design and evaluation of man-machine systems.

444 **Performance Appraisal.** Theory of criterion development, the evaluation process, and measurement in performance appraisal. Emphasis on design and development.

445 **Advanced Training and Development in Organizations.** In-depth exposure to issues related to training in industry and other organizations. Such topics as needs assessment, training program design, program evaluation, and relevant ethical, social, and economic issues will be covered.

446 **Psychological Theories of Organizations.** Theory and research in the social psychology of organizations relating to organizational design, analysis, systems, and processes.

447 **Organizational Consultation.** Applies behavioral science and managerial theories and methodologies to organizational consultation and change processes.

448 **Job Analysis and Professional Ethics.** Theory, research, and application in job analysis and job evaluation. Ethical issues in the practice of I/O psychology.

450 **Psychological Measurement.** Logical and mathematical principles underlying test construction with emphasis on evaluating the reliability and validity of scores.

451 **Applied Statistical Prediction.** Applications of statistics and psychological measurement to the problems of predicting human performance. Several computer programs will be used to analyze data.

454 **Behavior Modification.** Analysis of principles, practices, and research related to learning theory and the modification of human behavior.

481 **Individual Intelligence Testing I.** Theories of intelligence and cognitive development. Introduction to the administration of verbal and various non-verbal tests including the Stanford Binet, Wechsler Intelligence Scale for Children and Wechsler Adult Intelligence Scale and the clinical use of these instruments. Materials fee $10.00.

482 **Personality Assessment.** Administration and scoring of the Rorschach and Thematic Aperception Test and other tests. Evaluation of tests and related areas of research and development.
Advanced Psychodiagnosics. Advanced study of projective techniques and other assessment methods, with emphasis on analysis, interpretation and integration of all pertinent clinical data, and report writing.


Neuropsychological Testing. Introduction to theory and assessment techniques related to adult and child neurological functioning.

Advanced Psychopathology. Review of the major diagnostic categories as outlined by the current Diagnostic and Statistical Manual. Current issues in psychopathology and related research are reviewed.


Principles of Psychotherapy. Analysis of theoretical approaches to psychotherapy.


Treatment Methods with Children. Consideration of a variety of treatment approaches used to help alleviate the psychological problems of children with emphasis on play psychotherapy.

Principles of Consultation. The principles and dynamics involved in the various types of consultative relationships. Techniques of consultation with parents, teachers, agencies, physicians and others in regard to problems and deviancy, methods of management and treatment.

Clinical Community Psychology. Advanced course which examines alternative service delivery models.

Evaluation and Research in Community Mental Health. Examination of methodological approaches to assessing program and intervention effectiveness related to community psychology interventions.

Professional Ethics and History of Psychology. (2)

BMDP Seminar. Introduction to the use of the BMDP statistical package. BMDP can be used in the analysis of a wide variety of social science data.


Principles of Human Diversity. Considerations related to minority status and issues specific to diagnostics and interventions with minority populations.

Psychology of the African-American Child. (Cross-listed with PSY 346). Development and socialization of African-American child from infancy to adolescence. Emphasis on psychological and cultural factors which influence these processes. Understanding the child, family and the child, language and I/O, education and learning styles, and cultural identity are all emphasized.

Seminars numbered 550 through 570 may be taken for credit more than once with the consent of the instructor. Variable credit of one to four quarter hours of credit unless otherwise noted.

Seminar in Teaching Psychology. (0 hours)

Seminar in Experimental Psychology.

Seminar in Neuropsychology.

Seminar in Personality Research.

Seminar in Comparative Psychology.
Social and Emotional Development. (Cross-listed with Psychology 370). This course focuses on the development of emotions, social relationships, and social interaction. Both theoretical perspectives and research findings are presented and analyzed. Topics to be covered may include: primary emotions and their development, nonverbal communication of emotions, socialization within the family, friendship and peer relations, aggression, moral development, sex role development, and attachment.

Seminar in Social Psychology.

Seminar in Learning and Cognitive Processes. Constructive processes in cognitive psychology, such as constructive and reconstructive memory, language comprehension, problem solving and reasoning, and creativity. Past student-selected topics include imagery, memory, hypnosis, the use of conditioning principles in communication, belief systems, and the use of metaphor in stories.

Seminar in Advanced Statistics. (Prerequisite: PSY 411 and 420.)

Seminar in Industrial/Organizational Psychology. (4 hours)


Advanced Psychology of Women. (Cross-listed with MLS 478) A review of research and theory on women, including sexist biases in methodology, feminist therapy, violence against women, and gender differences in development, power and sexuality.

Seminar in Family Therapy. A review of systems theory and the assessment and treatment of families and couples. (Prerequisite: PSY 574.) (4 hours)

Mental Imagery. Theory, research, and practical applications of mental imagery are considered in lecture/discussion/student-report format. Variety of imagery techniques will be reviewed which have been found useful in research and practice. Special attention devoted to the differences between subjective approaches (consciousness and vividness ratings) versus objective approaches (memory measures) of studying imagery.

Seminar in Clinical Research. (Prerequisites: 488.)

Advanced Clinical Seminar

Seminar in Psychopathology.

Seminar in Community Psychology. Analysis of theories of community and human behaviors from the standpoint of general systems principles. (4 hours)

Seminar in Program Evaluation. Analysis of major research programs dealing with social and mental health problems with emphasis on epidemiological and socio-clinical research methods. (4 hours)

Seminar in Psychotherapy Research.

Psychobiology of Social Cognition. Explores social cognition in the frame of evolutionary, neurophysiological, and developmental biology. Comparison of human with other animal social-cognitive characteristics will be examined. Neuropsychological data and developmental psychobiology will be studied.

All practicum courses numbered 574 through 583 require the consent of the Director of Clinical Training. Six practica courses must be taken for graduation. Pre-practica should be taken Fall, Winter and Spring Quarters of the student’s first year. All practica carry 0 credit hours.

Pre-Practicum in Clinical Psychology. May be repeated three times.

Practicum in Clinical Assessment. Supervised experience in intake interviewing, psychological evaluation, and case conference presentation in a clinic, hospital or community agency setting.
Practicum in Clinical Psychology. Supervised experience in diagnostic assessment, intervention planning, psychotherapy and report writing through varied assignments to campus or community agencies.

Practicum in Child Clinical Procedures. Supervised practice in the diagnosis and treatment process of the problems of children and adolescents. May be repeated twice.

Advanced Practicum in Clinical Psychology.

Practicum in Community Mental Health.

Practicum in Special Areas in Psychology.

Field Work in Clinical Psychology. An applied experience which integrates skills of consultation, program development, advocacy, and program evaluation. Consent of instructor required. (4 hours)

Practicum in Applied Industrial/Organizational Psychology. Supervised experience in the application of I/O Psychology and technical report writing. (4 hours)

Practicum in Advanced Research in Industrial/Organizational Psychology. Supervised experience in I/O research and the preparation of research results for publication. (4 hours)

SPECIAL STUDIES

Topics in Experimental Psychology. Consideration of topics of current interest to the faculty and advanced graduate students. Introduction to research methods and data analysis. Taught concurrently with PSY 589. (4 hours)

Practicum in Experimental Psychology. Computer data analysis and research presentation. Taught concurrently with PSY 588. (4 hours)

Thesis Seminar. (0)


Psychological Research. A course involving intensive readings in contemporary psychological literature. (Arranged by prior consultation with the Chairman.) (1 to 4)

Colloquium. Required of all graduate students. Lectures by psychologists and members of the faculty. (No credit.)

Internship in Clinical Psychology. (Arranged with consent of Director of Clinical Training.) (No credit.)

Master's Thesis Research. Original investigation of a specific research problem. (1 to 4) (4 hours required)

Dissertation Research. (1 to 12 hours per quarter, 12 hours total required.)

Resident Candidacy Continuation. Students admitted to candidacy for the doctoral degree who have completed all course and dissertation registration requirements and who are regularly using the facilities of the University for study and research are required to be registered each quarter of the academic year until the dissertation and final examination have been completed. Non-credit. $388.00 per quarter. (Prerequisite: Admission to Candidacy)

Non-Resident Candidacy Continuation. This registration provides for doctoral candidates who have been admitted to candidacy who are not in residence and need only occasional use of University facilities, including the libraries. Non-credit. $40 per quarter. (Prerequisite: Admission to Candidacy)
PUBLIC SERVICES

FACULTY

Richard A. Yanikoski, Ph.D., Associate Professor, Program Director ......................................................... University of Chicago
John P. Barrett, M.S.I.R., Lecturer .................................................................................................................. Loyola University
Susan F. Bennett, Ph.D., Assistant Professor ........................................................................................................ Northwestern University
Samuel J. Brakel, J.D., Lecturer ........................................................................................................................ University of Chicago
James F. Brady, M.B.A., Lecturer ....................................................................................................................... University of Chicago
Harold Bressler, J.D., Lecturer .......................................................................................................................... DePaul University
Grace Budrys, Ph.D., Professor ......................................................................................................................... University of Chicago
Kim C. Byas, M.P.H., Lecturer ........................................................................................................................ University of Michigan
Deborah A. Carroll, J.D., Lecturer ......................................................................................................................... DePaul University
Diane Cernivivo, J.D., Lecturer .......................................................................................................................... DePaul University
James Dechene, Ph.D., Lecturer ......................................................................................................................... University of Michigan
William E. Denton, Ph.D., Lecturer .................................................................................................................... University of North Carolina, Chapel Hill
Katheryn M. Dutenhaver, J.D., Associate Professor ......................................................................................... DePaul University
Lynn D. Fleisher, Ph.D., Lecturer ....................................................................................................................... Mt. Sinai School of Medicine
Steven J. Goldberg, J.D., Lecturer ....................................................................................................................... University of Illinois
Donald H. J. Herrmann, Ph.D., Professor ........................................................................................................ Northwestern University
Michael S. Jacobs, M.P.H., J.D., Assistant Professor ...................................................................................... Yale University
Leo Keryczynski, M.S., J.D., Adjunct Assistant Professor ................................................................................ Northern Illinois University
Diane Krier-Morrow, M.P.H., Lecturer ............................................................................................................... University of Illinois at Chicago
J. Patrick Murphy, C.M., Ph.D., Assistant Professor ....................................................................................... Stanford University
Michael R. Nathanson, Ph.D., Lecturer ............................................................................................................... University of Chicago
Terrence J. Rynne, M.M., Lecturer ..................................................................................................................... Northwestern University
Susan M. Sanders, R.S.M., Ph.D., Assistant Professor .................................................................................. University of Chicago
Anna Marie Schuh, M.S., Lecturer .................................................................................................................... DePaul University
William P. Schuring, J.D., Lecturer .................................................................................................................. Boston University
Jeffrey S. Slovak, Ph.D., Lecturer ..................................................................................................................... University of Chicago
Joseph P. Schwieterman, Ph.D., Assistant Professor ..................................................................................... University of Chicago
Barbara Waggoner, M.P.H., Lecturer ............................................................................................................... University of Illinois at Chicago
Anna L. Waring, B.A., Lecturer ......................................................................................................................... Williams College
Stephen J. Weiser, LL.M., Lecturer .................................................................................................................. DePaul University
Cathy L. Welsh, M.B.A., Lecturer ..................................................................................................................... Northwestern University
Stephen R. Yates, J.D., Lecturer ....................................................................................................................... University of Chicago

PURPOSES

The Public Services Graduate Program promotes effective management of nonprofit organizations and government agencies, and fosters development of sound public policies affecting the delivery of social services. Programs of instruction, research, and community involvement prepare adult learners to pursue administrative careers in a broad range of public service organizations.

While the knowledge and skills required to administer organizations in the public sector are becoming indistinguishable from those used in the private sector, the ultimate goals of not-for-profit versus for-profit organizations provide a sharp distinction. The Public Services Graduate Program keeps this distinction firmly in view in its course offerings. Degree and
certificate programs are interdisciplinary, drawing primarily upon the knowledge bases of sociology, economics, political science, law, and the human-service professions. The curriculum carefully balances theoretical and applied approaches to contemporary challenges of administration and policy analysis.

PROGRAMS

Master of Science:

Public Service Management
Health Law and Administration
Nursing and Public Service Administration (see Nursing Department)

Joint Degree:

Master of Science in Public Service Management and Juris Doctor in Law

Certificate:

Administrative Foundations in Public Service

MASTER OF SCIENCE: PUBLIC SERVICE MANAGEMENT

Admission Requirements

Admission to the degree program in Public Service Management is selective. Application for admission may be made at any time during the year. To be considered for full admission, an applicant is required, at a minimum, to supply the following:

- Bachelor's degree from an accredited institution
- Undergraduate grade-point average of at least 2.7 on a scale of 4.0
- Two current letters of recommendation
- Written statement concerning educational goals, career interests, and academic capabilities

GRE, LSAT, or GMAT scores are not required but may be submitted to strengthen an application.

An applicant whose undergraduate grade-point average falls slightly below the stated criterion may seek conditional admission by submitting additional evidence of competence, including a writing sample and a statement summarizing any relevant work or volunteer experience. An interview with the Program Director also will be required.

A student who lacks prior course work or work experience in economics, accounting, budgeting, or finance ordinarily will be required to take MPS 406, Introduction to Financial Administration, during the first year in the program. This course or its equivalent is a prerequisite for MPS 533; 406 does not count toward the required hours for the graduate degree.

An English language examination is required for applicants who completed their undergraduate education outside the United States; a minimum TOEFL score of 550 is needed for admission.

In addition to seeking students of proven academic ability, the Public Service Management Program purposefully strives to build an academic community that is racially, ethnically, and religiously diverse. The program especially welcomes students who are committed to developing new ways to provide affordable, quality services to those in society who have the greatest unmet need.
Academic Progress

Students must earn a grade of C- or better in each course that is to be counted for graduate credit. Students must maintain a cumulative grade-point average of B- (2.7) or better in order to remain in good standing and complete requirements for the M.S. degree in Public Service Management.

Degree Requirements

Courses: successful completion of a minimum of 52 quarter hours of graduate credit. Each course carries 4 credit hours unless otherwise specified. Included in this total are the following required courses:

Core Courses (34 quarter hours)

- MPS 500  Introduction to Public Service Management
- MPS 512  Public Service Organizations in the Public Context
- MPS 533  Financial and Economic Foundations of Public Service
- MPS 542  Policy Design and Analysis or MPS 543  Health Care Policy
- MPS 557  Need Assessment and Program Evaluation
- MPS 580  Quantitative Methods in Public Service or MPS 581  Advanced Quantitative Methods
- MPS 582  Research Methods in Public Service
- MPS 585  Practicum/Thesis Design (2 credit hours)
- MPS 595  Practicum in Administration and Policy Analysis I or MPS 598  Thesis Research I

Elective Courses (18 quarter hours)

Students are free to select elective courses according to their personal interests. If warranted by a student's special needs, up to two elective courses may be taken in other departments of the university. Permission of the Program Director must be obtained prior to registration for such courses.

MASTER OF SCIENCE: HEALTH LAW AND ADMINISTRATION

Admission Requirements

This master's program is offered by the Public Services Graduate Program in cooperation with the College of Law. It is designed for students whose administrative careers require a detailed understanding of case law applicable to the health fields. Admission to the Health Law and Administration Program is selective. Application for admission may be made at any time during the year. To be considered for full admission, an applicant is required, at a minimum, to supply the following:

- Bachelor's degree from an accredited institution,
- Undergraduate grade-point average of at least 2.8 on a scale of 4.0
- Two current letters of recommendation
- Paralegal or health-care work experience or equivalent formal schooling
- Written statement concerning educational goals, career interests, and academic capabilities
- Interview with the Program Director

GRE, LSAT, or GMAT scores are not required but may be submitted to strengthen an application.

An applicant whose undergraduate grade-point average falls slightly below the stated criterion may seek conditional admission by submitting additional evidence of competence, including an extended writing sample concerning a relevant topic.
A student who lacks prior coursework or work experience in economics, accounting, budgeting, or finance ordinarily will be required to take MPS 406, Introduction to Financial Administration, during the first year in the program. This course or its equivalent is a prerequisite for MPS 533: 406 does not count toward the required hours for the graduate degree.

An English language examination is required for applicants who completed their undergraduate education outside the United States; a minimum TOEFL score of 550 is needed for admission.

In addition to seeking students of proven academic ability, the Health Law and Administration Program purposefully strives to build an academic community that is racially, ethnically, and religiously diverse.

**Academic Progress**

Students must earn a grade of C- or better in each course that is to be counted for graduate credit. Students must maintain a cumulative grade-point average of B- (2.7) or better in order to remain in good standing and complete requirements for the M.S. degree in Health Law and Administration.

**Degree Requirements**

**Courses:** successful completion of a minimum of 34 quarter hours of graduate credit in Public Service Management and 15 semester hours in the College of Law. Each Public Service Management course carries 4 quarter hours and each Law course 3 semester hours, unless otherwise specified.

**Core Courses—Public Services** (34 quarter hours)
- **MPS 500** Introduction to Public Service Management
- **MPS 533** Financial and Economic Foundations of Public Service
- **MPS 543** Health Care Policy or **MPS 537** Health Care Delivery Systems
- **MPS 557** Need Assessment and Program Evaluation
- **MPS 570** Introduction to Health Law
- **MPS 580** Quantitative Methods in Public Service or **MPS 581** Advanced Quantitative Methods
- **MPS 582** Research Methods in Public Service
- **MPS 585** Practicum/Thesis Design (2 credit hours)
- **MPS 595** Practicum in Administration and Policy Analysis I or **MPS 598** Thesis Research I

**Core Courses—College of Law** (9 semester hours)

One course on private-sector health care:
- **LAW 425** Hospital Law
- **LAW 706** Corporate and Regulatory Aspects of Health Care
- **LAW 722** Employment Law Issues in Health Law

One course on ethical policy:
- **LAW 201** Genetics and the Law
- **LAW 250** Legal Issues of AIDS
- **LAW 701** Legal and Public Policy Aspects of Medical Ethics

One course on public health:
- **LAW 434** Public Health Law
- **LAW 472** Mental Health Law
- **LAW 728** Food and Drug Law

**Elective Courses—College of Law** (6 semester hours)

Two Law courses will be chosen in consultation with the Director of the Health Law Institute.
Note: Students whose primary interest is in the study of law should consider application to the College of Law for admission to the Juris Doctor program. The Health Law and Administration Program is not designed to serve as a preparatory program for law school admission.

MASTER OF SCIENCE: NURSING AND PUBLIC SERVICE ADMINISTRATION

The Public Services Graduate Program cooperates with the Department of Nursing to offer courses leading to the M.S. degree in Nursing and Public Service Administration. For details, see the listing under the Nursing Department.

JOINT PROGRAM: PUBLIC SERVICE MANAGEMENT AND JURIS DOCTOR

The College of Liberal Arts and Sciences and the College of Law offer a joint program leading to the M.S. degree in Public Service Management and the J.D. degree in Law. The joint degree program applies to both day and evening law curricula.

Each prospective student is responsible for gaining admission to the College of Law and the Public Service Management Program independently. Once admitted to both degree programs, the student may petition to be accepted into the joint degree program. A maximum of four courses may be counted concurrently toward completion of both degrees.

In practice, since all first-year Law courses are required, a student in the joint program may not take elective courses leading to the joint degree during the first year of study.

CERTIFICATE PROGRAM: ADMINISTRATIVE FOUNDATIONS IN PUBLIC SERVICE

This program is designed for individuals who wish to pursue course work in a specific area of public service administration.

Admission Requirements

Application for admission to the certificate program may be made at any time during the year. To be considered for admission, an applicant is required, at a minimum, to have the following:

- Bachelor's degree from an accredited institution
- Undergraduate grade-point average of at least 2.5 on a scale of 4.0
- Interview with the Program Director to plan course selection

An English language examination is required for applicants who completed their undergraduate education outside the United States; a minimum TOEFL score of 550 is needed for admission.

Academic Progress

Students must earn a grade of C- or better in each course that is to be counted for graduate credit. Students must maintain a cumulative grade-point average of B- (2.7) or better in order to remain in good standing and complete requirements for a certificate. Credit hours earned in 500-level courses for a certificate may be applied toward the M.S. degree.
Certificate Requirements

Courses: successful completion of 12 quarter hours in Public Service Management courses selected in consultation with the Program Director.

COURSES

Courses are taught during the evening hours and on Saturdays, primarily at the Loop campus. All courses carry four quarter hours of degree credit unless otherwise indicated.

PREREQUISITE COURSE

MPS 406 Introduction to Financial Administration. An introduction to basic principles of fund accounting, microeconomics, and financial analysis as applied in the not-for-profit sector. The approach is practical in nature, offered from the user's perspective. Note: This may be taken on a Pass/Fail basis, unless otherwise indicated upon admission to the program.

PUBLIC SERVICE MANAGEMENT

Core Courses

500 Introduction to Public Service Management. Introduces students to administrative concepts, practices, and skills needed by managers in public service organizations. Topical areas include the functions of planning, organizing, staffing, directing, controlling, problem solving, and decision making.

512 Public Service Organizations in the Public Context. Introduces students to the contributions and limitations of the three sectors that provide service to the public: the market or proprietary sector, the government sector, and the nonprofit sector. Using fundamental techniques of economic and organizational analysis, students examine the origins of and interrelationships among these sectors. Attention then turns to the scope and diversity of organizations in the nonprofit sector.

533 Financial and Economic Foundations of Public Service. Introduces students to financial and microeconomic issues affecting the governmental and nonprofit sectors. Techniques for effective fiscal planning, budgeting, and financial management are discussed. Specific applications to local government and nonprofit organizations, including health care and higher education, are considered. (Prerequisite: MPS 406 or equivalent)

542 Policy Design and Analysis. Focuses on processes and techniques of analyzing and designing public policies. Students are introduced to an analytical way of thinking that includes: defining and modeling policy problems; designing policy alternatives; evaluating policy alternatives using ethical, legal, economic, organizational, and political criteria; and anticipating problems of policy implementation.
Need Assessment and Program Evaluation. Prepares students to conduct need assessments and program evaluations, which are foundational components of effective administration in public service programs. Focuses on how to identify indicators of need and then how to use diverse evaluative methods to assess a program's effectiveness.

Quantitative Methods in Public Service. Prepares students to use and produce quantitative analyses for policy studies and administrative decision making; focuses on descriptive and beginning-level inferential statistics.

Research Methods in Public Service. Introduces students to principles and methods of applied research, including the proper use of surveys, interviews, focus groups, and quasi-experimental designs.

Practicum/Thesis Design. Prepares students to undertake a practicum or thesis project. Each student identifies an appropriate research issue, policy concern, or organization to study; undertakes a review of relevant literature; and prepares a written practicum or thesis design. (2 credit hours) (Prerequisite: MPS 582 and consent of the Program Director)

Practicum in Administration and Policy Analysis I. Students carry out practicum projects designed in MPS 585. Field work is encouraged but not required. The final product of this course is a substantial analytical report. (Prerequisite: MPS 585) (Binding fee)

Elective Courses

Elective courses are to be taken concurrently with or upon completion of core courses.

Organizational Culture. Overview of how organizational cultures are created and maintained, the roles of leaders in managing organizational culture, and the characteristics of functional and dysfunctional cultures. (Prerequisite: MPS 500)

Leadership. Introduces concepts, tasks, and styles of leadership, including transactional and transformational leadership; explores recent research on leaders' characteristics and effectiveness. (Prerequisite: MPS 500)

Working with an External Board. Examines the functions and structures of external boards, with special attention to effective methods of composing a board and managing board-administration relations.

Budget Formulation and Analysis. Pragmatic overview of resource allocation and budget preparation methods in public service agencies. (Prerequisite: MPS 533)

Fund Accounting in Nonprofit Organizations. Advanced overview of principles, practices, and procedures of fund accounting in nonprofit organizations, including financial reporting and ratio analysis. (Prerequisite: MPS 533)

Government Sector Financial Administration. Advanced overview of principles, practices, and procedures of taxation, public funding, and governmental accounting. (Prerequisite: MPS 533)

Case Analysis in Health Care Administration. Case-study approach to analyzing effective administration of health care organizations.

Seminar on Health Issues. Analysis of selected issues regarding health care systems. Students select issues of interest and write a review of relevant literature.

Human Resource Administration. Introduces general and special functions of the human resources department and its relationship to other organizational units and functions. Special emphasis on human resource planning, development, and evaluation.
523 Administrative Case Analysis. Simulates administrative problem-solving using a case analysis format. Cases involve identification of problems, gathering relevant background information, and evaluating direct and indirect effects of various courses of action.

524 Marketing for Service Organizations. Explores the objectives, resources, and constraints which affect the marketing efforts of government and nonprofit service organizations. Appropriate marketing strategies and techniques are described.

525 Intergroup Relations. Examines social, economic, racial, ethnic, and religious diversity, with emphasis on effective methods of managing inter-group relations both in the workplace and in the provision of public services.

528 Small Groups. Examines the attributes and functions of small groups in large organizations, including behavioral theories underlying small-group dynamics and managerial practices that make the best use of small groups.

529 Strategic Planning. Introduces the purposes and methods of strategic planning in service organizations, including environmental scanning, goal setting, and prioritization of alternatives.

530 Total Quality Management in Service Organizations. Overview of principles and practices of total quality management as applied in service organizations. Examines theories as well as case studies.

532 Law and Nonprofit Organizations. Introduces laws and regulations governing nonprofit organizations, including procedures for incorporation, maintenance of tax-exempt status, and compliance with relevant labor laws. No legal background is assumed.

537 Health Care Delivery Systems. (Cross-listed with SOC 437) Comparative examination of health care delivery systems on local, national, and international levels, including their relationships to social policies and economic factors.

538 Political Feasibility Analysis. Introduces students to methods of assessing the political feasibility of policies being considered at local, state, and federal levels. Emphasizes identification of relevant elected politicians, non-elected officials, and interest groups; their positions and political resources; policy variables and areas of negotiation and compromise; and strategies for affecting the processes of policy formation and adoption. (Prerequisite: MPS 542)

540 Bureaucracy and the American Polity. Bureaucracy examined as a pervasive means of organizing complex activities in public and private sectors. Emphasizes problems of implementing policy within a bureaucratic context.

543 Health Care Policy. Overview of the development of state and national health care policy, using selective case studies to illustrate how the policy process works.

544 Law Enforcement Policy Issues. (Cross-listed with SOC 446) Theory, application, and impact of law enforcement policies on police, corrections, and the courts.

545 Community Organizations and Urban Development. (Cross-listed with SOC 426) Examines community organizations as problem-solving bodies that interact with government agencies in affecting urban development and the formation of urban public policy.

547 Medical Sociology. (Cross-listed with SOC 431) Overview of social systems of health care in the United States, including the health-seeking behavior of patients, relationships among health-care providers, and organizational settings in which services are delivered.
Association Management. Examines membership associations as a special type of public service organization, with emphasis on managing both the external policy roles of associations and internal roles related to directly serving constituent members and organizations.

Principles and Practices of Supervision. Focuses on factors affecting employee behavior and the nature and purposes of supervisory roles. Deals with selecting, motivating, evaluating, and terminating employees.

Urban and Community Analysis. (Cross-listed with SOC 422) Quantitative analysis of urban issues, including social area analysis, patterns of segregation and neighborhood change, and other selected topics.

Economics of Health Care. Analyzes who pays and who benefits in the American system of health care, with special attention to issues of equity, pricing, cost-containment, and methods of financing health care. (Prerequisite: MPS 533)

Labor Relations and Government Policy. Examines legal requirements and constraints which affect the collective bargaining process. Emphasizes the historical background of labor laws and Supreme Court decisions affecting the application of these laws to labor relations. Reviews current public policy regarding labor law and its impact on services.

Seminar on Youth Services. Selective survey and analysis of issues concerning the provision of services to youth. Students select and study specific issues, agencies, or policies relating to youth services.

Introduction to Health Law. Introduces students from non-legal backgrounds to the legal system. Examines legal materials, including statutes, judicial opinion, and administrative regulations. Basic legal research and writing skills are taught.

Metropolitan Planning. Analyzes issues, decision-making processes, and resources that affect planning across a metropolitan area, including urban-suburban relations and the complexities of zoning and community development.

Urban Poverty Seminar. Readings, case studies, and student projects which explore the causes and conditions of urban poverty, together with a selective analysis of how public policy and service agencies address human need.

Writing in the Professions. (Cross-listed with ENG 494) Improves writing skills useful in semi- and non-technical professions; emphasis on style, tone, awareness of purpose and audience: effective memo, proposal, and report writing.

Advanced Quantitative Methods. Explains analysis of variance, linear and multiple regression, factor analysis, cluster analysis, and time-series analysis. Involves use of statistical software. (Prerequisite: MPS 580 or equivalent)

Survey Design and Administration. Advanced guide to principles and practices of designing questionnaires and administering surveys. (Prerequisite: MPS 582) (2 credit hours)

Interviewing. Advanced guide to principles and practices of face-to-face and telephone interviewing; oriented toward research uses, not employment interviews. (Prerequisite: MPS 582) (2 credit hours)

Proposal Writing. Explains how to prepare proposals for external funding or for approval of new programs; describes RFP and peer review processes, and methods of locating potential funding sources. (2 credit hours)

Volunteerism in American Society. Analysis of volunteerism in American society, including its historical development, contemporary trends, social significance, and organizational implications. (2 credit hours)
Fundraising and Development for Nonprofit Organizations. Explains fundraising and development practices commonly used by nonprofit organizations. Focuses on capital campaigns, annual giving, and special appeals. (2 credit hours)

Special Topics (2 credit hours) (May be taken more than once)

Ethics in Administration. Examines ethical dimensions of issues faced by administrators in public service organizations. Case materials used. (2 credit hours)

Practicum in Administration and Policy Analysis II. Continuation course for students whose practicum projects extend significantly beyond what they can finish in MPS 595. (Prerequisite: MPS 595 and consent of instructor)

Seminar in Administration (May be taken more than once)

Thesis Research I. Students carry out a theoretically-based research project designed in MPS 585. The final product of this course is a Master's thesis. (Prerequisite: MPS 585 and consent of a full-time faculty thesis advisor)

Thesis Research II. Continuation course for students whose research projects extend significantly beyond what they can finish in MPS 598. (Prerequisite: MPS 598 and consent of a full-time faculty thesis advisor)

Independent Study. Individually supervised learning experience, usually involving extensive library research and writing. (Variable credit) (Prerequisite: consent of Program Director)

Internship. Supervised work experience during one or more quarters, usually involving application of administrative skills in an organizational setting new to the student. (Variable credit) (Prerequisite: consent of Program Director)

Candidacy Continuation. Required of students who are not registered for regular courses but who occasionally use university facilities (libraries, computers) during an academic quarter while completing course requirements or research. Non-credit. $40.00 per quarter.

HEALTH LAW AND ADMINISTRATION

Core Courses

MPS 500, 533, 543, 557, 570, 580, 582, 585, and 595. Descriptions for all except 570 are given on previous pages.

Note: MPS 570 must be completed prior to enrollment in any of the following courses.

LAW 201 Genetics and The Law. This course explores new medical and genetic techniques and the legal and ethical controversies they have engendered. Among the topics covered are: new reproductive technologies; the fetus as a source of cells and tissues for therapeutic transplantation; new techniques in prenatal diagnosis; fetal therapy and surgery; managing severely affected newborns; genetic biotechnology; genetic screening in the workplace. The format for the course is a series of presentations by medical specialists, as well as by students of their seminar papers.

LAW 250 Legal Issues of AIDS. This course will examine a number of significant legal and policy issues raised by acquired immune deficiency syndrome (AIDS). This seminar will involve discussion of materials assigned for each class period. In addition, each student will select a research topic and write a paper on that topic. A schedule of assignments for the research paper will be provided. (Prerequisite: MPS 570) (3 semester hours)
LAW 425 Hospital Law. An overview of the common law and statutory law impacting institutions which provide health care. Among subjects to be considered are: licensing and accreditation; organization of the institution and staff; staff privileges and their alteration by suspension or revocation; labor relations and employment discrimination; financing and corporate restructuring; tax and accounting problems; and federal legislation affecting reimbursement. (Prerequisite: MPS 570.) (3 semester hours).

LAW 434 Public Health Law. An examination of the past and present aspects of the law concerning the health of the public by identifying the various governmental entities involved and reviewing specific areas of public health policy law, common law and regulation. The aspects covered include the federal basis for public health regulation, the state and local government basis for public health regulation, the constitutional and statutory limitations of the methods of public health regulation and current public health problems which require legal responses. (Prerequisite: MPS 570) (3 semester hours).

LAW 472 Mental Health Law. The course examines significant issues in law and psychiatry and involves in-depth research and writing. Subjects include regulation of mental health professionals, malpractice, informed consent, confidentiality, incompetency, guardianship, commitment and mental health issues related to the criminal law. (Prerequisite: MPS 570) (3 semester hours).

LAW 701 Legal and Public Policy Aspects of Medical Ethics. This course explores the interaction of law and ethics in providing the policy and moral limits of medical practice and science. The readings in the seminar are drawn from works in law, philosophical and religious ethics, history, political science, as well as medicine and biology. The course includes discussion of the following topics: ethical dimensions of the physician-patient relationships; moral bases of medical ethics; regulation, compulsion, and consumer protection in clinical, medical and public health; truth-telling and the physician-patient relationships; medical experimentation on human subjects; procreation discussion; suffering and dying; rights and priorities in provision of medical care. (Prerequisite: MPS 570) (3 semester hours).

LAW 706 Corporate and Regulatory Aspects of Health Care. Designed to introduce students to a broad variety of policy issues affecting health care, and briefly touches on economics, sociology, antitrust, tort law, administrative law, and important questions of national health policy. Among other things, the course asks whether government can or will provide health care to those who cannot afford it, and whether business can place the goal of good health above that of good profits. It asks whether the health care "industry" needs to be regulated in the public interest and whether the best "regulator" is the federal government, the courts, the marketplace, or some combination of the three. (Prerequisite: MPS 570) (3 semester hours).

LAW 722 Employment Law Issues in Health Law. This course examines a range of issues involving employment and labor law as it relates to health care workers. Among the issues examined are bargaining units for hospitals, OSHA regulations of the health care workplace, employment-at-will, drug testing and inpatient health care provider; employment discrimination, impact of the National Labor Relations Act to the health care environment, and other employment issues.
LAW 728 Food and Drug Law. This course will deal with the development of regulations of food, drug, biologics and blood products, medical devices and cosmetics. Emphasis will be placed on Federal Drug Administration (FDA) enforcement, with some attention to state statutes. FDA practices and procedures will be examined in detail. Special emphasis will be given to regulations of human drugs and medical devices. (Prerequisite: MPS 570) (3 semester hours).

Elective Courses

Note: MPS 570 must be completed prior to enrollment in any of the following courses. The courses listed below are each worth 3 semester hours (4.5 quarter hours).

LAW 401 Health Care Contracts. This course covers a variety of contractual issues related to health care: employment agreements, staff privileges, fraud and abuse provisions of the Medicare Act, breach of contract resulting from treatment, disputes over fees, waiver of liability, the use of independent contractors, and the validity of contracts for exclusive services and preferential fee structures for insurers.

LAW 413 Seminar in Health Law: Selected Topics. The course reflects current issues of public debate. Topics may include legal aspects of bio-genetics, experimentation and research in medicine, or antitrust issues in health law.

LAW 416 Health Law Legislative Drafting. The course involves drafting of proposed legislative and supporting memoranda under an instructor's supervision. The work of students will form the basis of a conference with legislators, experts in the field, and concerned citizens. The objective is to develop a body of bills to be introduced in the state legislature.

LAW 421 Law and Medicine. This course covers numerous topics concerning the interrelationship of law, health, and medicine. Among these are regulation of the health care industry, professional responsibility to patients, choice of services and treatment, mental health and bio-ethical issues. The issues discussed in the seminar depend in large part on the interests of the class.

LAW 424 Reimbursement, Medicare, and Medicaid. An examination of the types of reimbursement systems, including charge-based preferred provider organizations, cost-based reimbursement, prospective reimbursement, budget review, diagnosis-related groups, capitalization, case management. A study of Medicare including inpatient, outpatient, and physician services; conditions of participation; co-payments and deductibles, conditions of participation for providers, fiscal intermediaries, utilization, and fraud and abuse. Medicaid including reimbursement principles, review activities, fraud and abuse, and audits.

LAW 442 Science and Medicine in the Litigation Process. Uses of medical evidence, evidence of crime obtained by health care personnel during treatment, biological sciences evidence, and behavioral science evidence in various types of litigation.

LAW 700 Health Sciences and Public Policies. An investigation of statutory and judicial responses to selected areas of health care, including regulation of physicians, other health professionals and institutions, treatment of incapacitated persons, treatment and refusal of treatment, voluntary surgical change, sterilization, contraception and abortion, and organ transplants.

LAW 705 Tax Issues in the Health Care Industry. The study of federal income tax laws as applied to tax-exempt health care institutions; unrelated business income, private foundation status, federal income tax laws as applied to corporate restructuring, tax-exempt financing, joint ventures, mergers and acquisitions, conversions and physician recruitment and retention programs of tax-exempt health care organizations; state and local taxes and tax-exempt aspects of the employment relationship.
LAW 724 Medical Malpractice. Analysis of various aspects of medical malpractice litigation in Illinois. Topics discussed include evolution of medical malpractice, theories and causes of action, provisions of the Medical Malpractice Tort Reform Act, procedural areas such as drafting the complaint, affidavits, pleadings, discovery and trial considerations. The course will also cover analysis of medical records and medical experts. The student will be expected to present a case synopsis based on hypothetical facts and will be expected to draft pleadings and discovery, outline expert depositions, and give an oral presentation of the strategy for the case and medical research.

LAW 726 Toxic Torts. The course is designed to teach issues of law and policy that arise from accidents caused by chemical and environmental toxins. Basic concepts of epidemiology will be introduced and will then be used to consider such issues as the role of scientific studies in establishing causation in tort actions; in determining who is a proper plaintiff and who a proper defendant; deciding how to apportion damages among defendants; assessing the burden of proof, product warning labels, and marketing practices of potentially harmful products; and discussing the practical application of litigation in mass exposure cases.
Rehabilitation Services

FACULTY

William A. Calzaretta, Ph.D., C.R.C., Associate Professor

and Program Director ........................................ Northwestern University

James E. Bordieri, Ph.D., Adjunct Lecturer ................ Illinois Institute of Technology

Carol A. Calzaretta, M.M., Adjunct Lecturer ................ Northwestern University

James E. Clecka, Ph.D., Adjunct Lecturer .................. Purdue University

Janice R. Daniels, M.S., Adjunct Lecturer .................. DePaul University

Alex DeVience, J.D., Adjunct Lecturer ........................ Loyola University

Jerry Dincin, Ph.D., Adjunct Lecturer ....................... Northwestern University

Donald E. Galvin, Ph.D., Adjunct Lecturer ............... University of Michigan

Peter P. Griswold, M.A., Adjunct Lecturer ............... Michigan State University

Norman D. Grunewald, M.S., Adjunct Lecturer .......... DePaul University

Anthony C. Krautmann, Ph.D., Adjunct Lecturer ........ University of Iowa

Cathy Lorber, Ph.D., Adjunct Lecturer .................... Northwestern University

James S. Lundstrom, M.S., Adjunct Lecturer .............. DePaul University

R. Bailey Markham, M.A., Adjunct Lecturer ............... Northwestern University

Sally Martin Egge, M.S., Adjunct Lecturer ................. University of Wisconsin, Milwaukee

J. Patrick Murphy, C.M., Ph.D., Adjunct Lecturer .... Stanford University

John F. Newman, Ph.D., Adjunct Lecturer ............... Emory University

Don A. Olson, Ph.D., Adjunct Lecturer ..................... Northwestern University

Dominic G. Parisi, Ph.D., Adjunct Lecturer ............... Northwestern University

Marjorie P. Piechowski, Ph.D., Adjunct Lecturer .... University of Wisconsin

William M. Salyers, Ed.D., Adjunct Lecturer .............. University of Indiana

Harry Smith, M.A., Adjunct Lecturer ...................... Michigan State University

Stanley B. Tarr, M.B.A., C.P.A., Adjunct Lecturer .... Northwestern University

PURPOSES

The purpose of the program is to provide qualified students with the knowledge and skills to function effectively in supervisory, managerial, and administrative positions. Program graduates are typically employed in private and not-for-profit rehabilitation organizations which develop the vocational and personal competence of persons with disabilities.

Four core areas of concentration provide the foundation for developing these skills:

Programmatic: Provision of services to rehabilitate persons with disabilities;

Resource Utilization: The organization of resources such as staff, board of directors, funding sources, and rehabilitation research for effective management;

Community: Interagency collaboration leading to the development and use of community resources and the formation of rehabilitation facility/agency networks; and

Planning: Use of socioeconomic data and current trends in legislative, professional and advocacy areas to plan for effective rehabilitation facility programs and the professional development of staff within the rehabilitation profession.
PROGRAMS

Certificates:
- Rehabilitation Facility Administration
- Psychosocial Rehabilitation

Master of Science:
- Management of Rehabilitation Services

CERTIFICATE: REHABILITATION FACILITY ADMINISTRATION

May be taken by persons not entering the degree program.
Designed to provide students with a background in accounting, economics, management, and the legal and philosophical fundamentals of rehabilitation.

Admission Requirements
Employment in a related rehabilitation work setting and/or Program Director approval.

Certificate Requirements
Courses (twelve quarter hours)

RSA 402 A&B Introduction to Rehabilitation Philosophy (3 credit hours)
RSA 403 A&B Organization and Managerial Foundations (3 credit hours)
RSA 406 A&B Economic Principles for Social Services and Human Resource Management (3 credit hours)
RSA 407 A&B Business Law and Accounting Principles in the Not-For-Profit Organizations (3 credit hours)

Note: A student may request in writing a waiver of three to six quarter hours of credit, based upon previous academic course work taken within the last five years. The request must be submitted at time of application or at least four weeks prior to the first scheduled class meeting. Official course descriptions from an accredited institution must accompany all requests and official transcripts must be forwarded to the department.

CERTIFICATE: PSYCHOSOCIAL REHABILITATION

May be taken by persons not entering the degree program.
Designed to provide rehabilitation professionals with training in the practice and theory of the psychosocial approaches for individuals with psychiatric disabilities.
New students seeking careers in this area will be provided with the fundamentals necessary for a successful pursuit of a degree program.

Note: This specialized program is offered only in conjunction with rehabilitation organizations' group enrollment and co-sponsorship. For further information contact the Program Director.

Admission Requirements
Employment in a related rehabilitation work setting and/or Program Director approval.
Certificate Requirements

Courses (twelve quarter hours)

RSA 410  Psychosocial Rehabilitation Foundations I (6 credit hours)
RSA 412  Psychosocial Rehabilitation Foundations II (6 credit hours)

MASTER OF SCIENCE:
MANAGEMENT OF REHABILITATION SERVICES

Admission Requirements

For full admission, student must have the following:

- Bachelor's degree conferred by an accredited institution.
- Grade point average of 2.0 or higher on a scale of 4.
- An interview with the Director or two letters of recommendation.

Degree Requirements

Courses: 48 quarter hours (core courses), 6 quarter hours (independent study research courses).
Successful completion of an acceptable master's project.
Successful completion of the certificate course requirements in Facility Administration, or their equivalent is a prerequisite.

Core Courses:

RSA 636  Supervision and the Human Factor (replaces 644)
RSA 637  Fiscal Management (replaces 639)
RSA 638  Computer Utilization and Introduction to Management Sciences in Rehabilitation
RSA 640  Theories and Concepts in Rehabilitation Practice
RSA 641  Management Theories and Concepts
RSA 642  Rehabilitation Programming: Principles and Practices
RSA 643  Managerial Principles and Practices
RSA 646  Rehabilitation Clients: The Hidden Disabilities
RSA 647  Research Methods and Statistics in Rehabilitation Administration
RSA 648  Rehabilitation Clients: The Self Evident Disabilities
RSA 650  Social Psychology of Rehabilitation Administration
RSA 653  Program Evaluation and Funding in Rehabilitation
RSA 655  The General Management of the Rehabilitation Facility
RSA 657  Job Placement/Supportive Employment Strategies and Technical Communication in Rehabilitation
RSA 691  Management Seminar in Advanced Organization Concepts
RSA 692  Rehabilitation Seminar: Emerging Issues and Trends

Note: Degree students, with the written consent of the Program Director, may waive one or two of the core courses and replace them with other approved relevant courses.
Special Studies Courses

RSA 660  Topics in Rehabilitation Research
RSA 661  Selected Topics in Rehabilitation Research
RSA 662  Candidacy Continuation

Master's Project: Completed under the guidance of a departmental faculty advisor. The M.S. project policy and procedure manual may be obtained from the department.

Note: Detailed information on the above Certificate or Degree requirements and program policies is listed in a separate departmental brochure. This brochure may be obtained from the department.

SCHEDULES FOR COMPLETING PROGRAMS

Intensive Schedule

This schedule accommodates the educational goals of working students who reside in the Rehabilitation Services Administration Federal Region V.

Off-campus intensive schedules are often available locally and regionally.

A course offered on an intensive schedule covers a 10-week period, but contains only six days of actual class meetings. Students receive a syllabus prior to the class meetings. The first weeks of the quarter are devoted to independent reading and preparation as recommended by the instructor. The class then meets for 2 three-day sessions in Chicago, at the University, or in other off-campus locations locally or regionally.

Typical length of time for completion of the degree program on the intensive schedule is 10 quarters or 2½ years. The certificate programs are completed in 2 quarters. Each course, offered on the intensive schedule, carries three quarter hours of academic credit and is the full academic equivalent of a 10-week resident course. Entry into intensive schedules (both on and off-campus) is typically in the autumn and spring quarters of the academic year.

Professional Development Seminar Series

Today's rehabilitation professional is faced with a rapidly changing work environment. Faced with changing federal laws and programs, advancing medical and engineering technology, changing funding priorities, and increasingly complex management problems, rehabilitation professionals want educational programming which will keep them abreast. The Professional Development Seminar Series offered by DePaul University provides one and two-day seminars on topics responding to current trends and issues in rehabilitation. Registration fees vary by seminar.

Commission on Rehabilitation Counselor Certification continuing education units are offered in CRCC approved seminars. To be added to the mailing list for brochures, contact the Rehabilitation Services Program.
Courses

Unless otherwise stated, all courses are three credit hours.

CERTIFICATE COURSES: 
REHABILITATION FACILITY ADMINISTRATION

402 A&B Introduction to Rehabilitation Philosophy. A review of the historical and philosophical foundations of rehabilitation. Emphasis is on the development of societal values, attitudes, and beliefs as applied to individuals with disabilities. A descriptive overview of the federal/state rehabilitation system is provided.


407 A&B Business Law and Accounting Principles in the Not-For-Profit Organizations. A—Business Law—The fundamental principles of law pertaining to business, not-for-profit organizations, unions and government regulations and ethics, are examined and applied to the rehabilitation setting. B—Accounting Principles—Accounting concepts and fundamentals applied to the not-for-profit organization.

Note: The above courses or their equivalent are required to meet the admission requirements for the master's degree program in the Management of Rehabilitation Services.

CERTIFICATE COURSES: PSYCHOSOCIAL REHABILITATION

410 Psychosocial Rehabilitation Foundations I. An introduction to theories and concepts of psychosocial rehabilitation. (6 credit hours.)

412 Psychosocial Rehabilitation Foundations II. A survey of the principles and practices of psychosocial rehabilitation. A pre-practicum designed as an on-site experience is required in this course. (6 credit hours)

DEGREE COURSES

When prerequisites are stated, an equivalent course taken elsewhere is acceptable upon written consent of the Program Director.

636 Supervision and the Human Factor (replaces RSA 644). A seminar with emphasis placed on the human factor in the rehabilitation process. Specifically, behavioral decision making, motivation, accountability, programmatic and professional aspects of supervision will be examined.
637. Fiscal Management (replaces RSA 639). The relationship of accounting information to management control, accounting techniques, budgeting, and fiscal administration in not-for-profit organizations are examined. (Prerequisite: RSA 407B or equivalent.)

638. Computer Utilization and Introduction to Management Sciences in Rehabilitation. The use of the computer in facility administration and the quantitative methods for decision-making in management are explored. (Prerequisite: RSA 647 or equivalent.)

640. Theories and Concepts of Rehabilitation Practice. An examination of the philosophical, behavioral, and cultural foundations of rehabilitation practice. (Prerequisite: RSA 402 or equivalent.)

641. Management Theories and Concepts. A critical review of management theories and the underlying management philosophy. A specific emphasis will be placed upon the consideration of current trends related to the management of an organization's social and community responsibility to persons with disabilities. (Prerequisite: RSA 403 or equivalent.)

642. Rehabilitation Programming: Principles and Practices. The goals, objectives, methods, and techniques used in rehabilitation programs are studied.

643. Managerial Principles and Practices. Operations systems, employing the case methods: development of analytical skills and problem-solving ability; administrative management operations, concepts, and philosophies are studied. (Prerequisite: RSA 641 or equivalent.)

646. Rehabilitation Clients: The Hidden Disabilities. This course will provide basic medical and psychosocial information about the impact of the hidden disabilities.

647. Research Methods and Statistics in Rehabilitation Administration. Formulation of empirical questions, basic design, statistical methods, and the utilization of research in rehabilitation will be explored.

648. Rehabilitation Clients: The Self Evident Disabilities. This course will provide basic medical and psychosocial information about the impact of self-evident disabilities.

650. Social Psychology of Rehabilitation Administration. Contemporary issues in management of rehabilitation will be examined within the context of human interaction.

653. Program Evaluation and Funding in Rehabilitation. A study of the methods used in planning and evaluating rehabilitation programs. Fund raising in the not-for-profit sector will be explored.

654. The Cornell Management Game. A seminar employing the technique of learning by discovery. Simulated workshop experiences focus on the decision-making processes of the rehabilitation facility manager.

655. The General Management of the Rehabilitation Facility. The problems of marketing, contract procurement, operations, production management, and budgeting within a public sector framework are critically examined.

691 Management Seminar and Advanced Organization Concepts. Emphasis on analyzing the tasks and problems encountered in managing rehabilitation agencies and facilities. An examination is made of the current issues confronting management.

Rehabilitation Seminar: Emerging Issues and Trends. Identification and examination of emerging trends and issues in the field of rehabilitation are studied.

SPECIAL STUDIES COURSES

100 Human Potentials Seminar. This seminar is designed as a structured group process, and focuses on the identification of individual personal resources. To accomplish this, the student is assisted in discovering his or her personal and vocational goals.

660 Topics in Rehabilitation Research. (Independent Study) A research oriented course which allows the student to work independently (under the guidance of the instructor), to review existing literature pertaining to the management of rehabilitation programs and the development of a M.S. project topic.

661 Selected Topics in Rehabilitation Research. (Independent Study) Continued supervised investigation of the student's identified M.S. project. (Binding fee required.)

662 Candidacy Continuation. This registration provides for degree-seeking students who have been admitted to candidacy who are not enrolled in a course in a given quarter and need occasional use of the University's facilities. Required of all students completing previous course requirements and/or M.S. project research. (Non-credit)
Sociology and Anthropology

FACULTY
Charles Suchar, Ph.D., Associate Professor and Chair ............... Northwestern University
Nancy M. Abbate, B.A., Lecturer ........................................... Mundelein College
Rosemary S. Bannan, Ph.D., Professor ..................................... Loyola University
Noel Barker, M.A., Lecturer .................................................... University of Illinois, Urbana
Judith A. Bootcheck, Ph.D., Associate Professor ......................... Purdue University
Grace Budrys, Ph.D., Professor .............................................. University of Chicago
Kenneth Fidel, Ph.D., Associate Professor ................................ Washington University
Roberta Garner, Ph.D., Professor ............................................. University of Chicago
John P. Koval, Ph.D., Associate Professor ................................ University of Oregon, Eugene
Theodoric Manley, Jr., Ph.D., Assistant Professor ......................... University of Chicago
Larry Mayo, Ph.D., Assistant Professor .................................... University of California, Berkeley
Felix Padilla, Ph.D., Associate Professor ................................ Northwestern University
Robert Rotenberg, Ph.D., Associate Professor .............................. University of Massachusetts, Amherst
Charles Stevens, Ph.D., Associate Professor ............................... Northwestern University
Joyce Sween, Ph.D., Professor ................................................ Northwestern University
Deena A. Weinstein, Ph.D., Professor ....................................... Purdue University

PURPOSES

Programs

The purpose of the graduate program in Sociology is to enable students to study sociological principles, ways of knowing, and sociological findings in areas of current interest and commitment. Training at the master's level in sociology is applicable to employment in such areas as law enforcement, corrections services, urban planning, public and private administration, health and welfare services, youth services, community organizations, and education.

A limited number of assistantships and traineeships are available to graduate students, as well as internships. Additional information is available upon written request to the Chairperson, Department of Sociology.

Master of Arts: Sociology

The course Sociological Perspectives serves as a foundation for the graduate program in Sociology and is required for all students. This course gives an overview to both the theoretical and methodological issues which guide the discipline.

Three specialized areas offer more detailed training in applied sociology: Urban Studies: Law and Society; and Health and Human Services with a special emphasis on Youth Services. As an alternative to specialized training, the student may develop a program in general sociology.
MASTER OF ARTS: SOCIOLOGY

Admission Requirements

For full admission, students must have the following:
Bachelor's degree.
The Department accepts as graduate students only those who show definite promise for completing the requirements for the advanced degree. Preference is given to applicants who have had undergraduate study in social science, who are currently employed in jobs related to the Department areas of specialization, or who have an expressed interest in these specialized areas.

One page written statement describing the applicant's reason for wishing to undertake graduate study in sociology is required.

Degree Requirements

There are three options in the Master of Arts in Sociology program:

Master of Arts in Sociology with Essay

SOC 405 Sociological Perspectives
SOC 411 Social Research Methodology. Required for students who have not already completed a course in research methodology at the undergraduate level.
Ten additional courses. Students must complete 40 hours in courses from specialized areas. If Methodology course has been taken, eleven additional courses (44 hours) must be completed.
Essay: A literature review or analytical essay indicating mastery over a body of literature. It should be prepared in conjunction with one of the specialized courses.

Master of Arts in Sociology with Research Project

SOC 405 Sociological Perspectives
SOC 411 Social Research Methodology
SOC 412 Data Analysis (A course in Qualitative methods may be substituted for Soc 412.)
Nine additional courses. Students must complete 36 hours in courses from specialized areas.
Research Project: Students will design and carry out a research project and prepare a final research report in the two-quarter methods sequence.

Master of Arts in Sociology with Thesis

SOC 405 Sociological Perspectives
SOC 411 Social Research Methodology
SOC 500 Thesis Research I
SOC 501 Thesis Research II
Eight additional courses. Students must complete 32 hours in courses from specialized areas.
Thesis: The design for the thesis project may be set up in SOC 411. A student must select an advisor and together they will set up a committee of three faculty. A thesis proposal hearing is required at the commencement of the project and an oral presentation at its completion.
Internships

Students are encouraged to serve as an intern in an organization or institution in order to undertake a study in conjunction with a research, administrative, or counseling position. Students should see the internship coordinator and register for SOC 498.

Courses

ADVANCED UNDERGRADUATE COURSES

Graduate students may take 300-level undergraduate courses for graduate credit with permission of the Chairperson. A graduate student in an advanced undergraduate course must receive a grade of B or better to obtain graduate credit.

The Sociology Department offers advanced undergraduate courses in the areas of law and society, urban studies, social services, juvenile justice, foundations of sociology, and anthropology. Please refer to the Undergraduate Bulletin for the complete listings.

GRADUATE COURSES

All courses carry four quarter hours of credit unless otherwise noted.

Core Courses

405 Sociological Perspectives. Examines sociological theories, methods and concepts through a study of the work of contemporary sociologists.

Methods Courses

411 Logic of Research Design and Evaluation. This course focuses on the logic of sociological inquiry, ethical issues of research, the various methods social scientists use, and research in applied settings.

412 Data Analysis. (Cross-listed with MPS 599.) The implementation of a research project. Analytic techniques, data processing, and the preparation of a written research report.

Sociological Background

240 Introductory Statistics for the Social Sciences. Presentation and description of data, contingency table construction and interpretation, introduction to multivariate analysis, correlation and hypothesis testing. This course is desirable for students who have not had a previous statistics course. It does not carry graduate credit. (Prerequisite: MAT 101 or two years of high school math or consent of instructor.)

401 Sociological Theory: Concepts and Perspectives. Introduction to the major theories of sociology in the development of the discipline. Desirable for students taking essay option.
Courses in Specialized Areas

Urban Studies

420 Urban Sociology. Introduction to advanced level studies in applied urban sociology: contemporary urban theory, research, and policy issues.

421 Urban Anthropology. Theories and methods of contemporary anthropology are employed to analyze a variety of topics of urban phenomena including the process of urbanization, urbanism—urban culture, subcultures, ethnic life styles—and the notion of images of cities.

422 Urban and Community Analysis. (Cross-listed with MPS 554.) Quantitative analysis of urban issues including social area analysis, patterns of segregation, neighborhood change, and other selected topics.

423 Urban Cultural Areas. Ethnological approach to urban life stressing the qualitative analysis and evaluation of different types of urban communities, community organizations, and urban life styles.

424 The Sociology of Housing. An in-depth approach to a major urban issue with a focus on federal and Chicago-area policies.

425 Strategies of Community Organizations. (Cross-listed with MPS 555.) Strategies and techniques used in the formation and process of community organizations. Primary conceptual emphasis from sociology, but a considerable interdisciplinary content included: an application of social science knowledge to bring about social change.

426 Policies and Urban Development. (Cross-listed with MPS 545.) Sequel to SOC 425. Community agencies viewed as problem-solving organizations. Concentration on the impact of state and local government on community organizations and how community organizations influence social policy.

Other courses recommended for students in this area include Intergroup Relations, Social Deviation and Collective Behavior.

Health, Education, and Welfare

430 Medical Anthropology. Issues in the health care fields arising from cultural diversity in the clinical context. Topics include culturally-based theories of disease and treatment-expectations, ethnic differences in locating symptoms and responding to pain and problems of intercultural communication.

431 Medical Sociology. (Cross-listed with MPS 547.) Analysis of the social system of health care: practitioners, organizations, patients, and their multiple interrelationships. An evaluation of problems in health care delivery systems.

432 Social Services in Contemporary Societies. Analysis of the concept of welfare, evaluation of the social organization of welfare and the problems of welfare service systems. The interrelationships between welfare and the family, employment, health and crime are explored.

433 The Sociology of Education. Analysis of educational organizations and their effects—including characteristics of institutional structures, teaching as an occupation, and the relationship between educational attainment and social mobility.

434 Youth Services: Health and Welfare. Review of research on various youth problems (e.g., substance abuse, pregnancy, runaways) and consideration of efforts at amelioration and control.
Administrative Processes and Organizational Structure of Health Care Organizations. (Cross-listed with MPS 567.) A case study approach emphasizing the interaction of the clinical, administrative, and other components of the health care team, the formulation of policy, and the control and distribution of resources.

Youth Service Delivery Systems. Consideration of the current state of youth services in Illinois. Analysis of the administration of agencies and their programs: program design, the funding process, intervention strategies.

Health Care Delivery Systems. (Cross-listed with MPS 537.) Consideration of the current state of health care delivery in the United States, the growth and projected direction of health care in the future. Implications of national policy on local delivery; cross-national comparisons and economic conditions will be considered.

Other courses recommended for students in this area include Sociology of Youth, Socialization, Social Deviance, Sex Roles, and Social Inequality.

Law and Society

Law and Social Science. Analysis of the American legal system as an instrument of social control, social change, and social reform. The impact of social science research on public policy decisions.

Crime, Delinquency and Systems of Correction. (Cross-listed with MPS 563.) Study of major criminological theories and their application to systems of corrections. Present trends at federal, state, city, and private correctional institutions.

Law and Administration of Justice. (Cross-listed with MPS 562.) Analysis of legal systems and their implementation: jurisprudence and its role in the development and change of legal systems; role of the courts and the police as related to community social problems.

Law Enforcement and Community Relations. (Cross-listed with MPS 556.) Examination of the policies and practices of law enforcement agencies and personnel and their impact on the communities they serve.

Law Enforcement Policy Issues. (Cross-listed with MPS 544.) Theory, application, and impact of policies in criminal law on police, corrections, and the courts.

Institutional Reaction to Deviants. (Cross-listed with MPS 564.) Examines theories and research on the social organization of institutions that label and process deviants.

Other courses recommended for students in this area include Intergroup Relations, Social Deviation and Collective Behavior.

General Electives

Social Policy and Social Change. Examines the process of policy-making and the effects of policies on individuals, organizations, and communities.

Information Systems and Society. Examines the societal impact of information systems and computer technology. A social scientific perspective for comprehending technologically induced social change at the level of the larger social system and in terms of the life styles and careers of individuals in society.

Applied Anthropology. Advanced level studies on the organized interaction between practicing anthropologists and both private and public policy-making bodies; the application of anthropological theories and research toward the solution of contemporary social, economic, and technical problems.

Advanced Statistics I. (Cross-listed with PSY 410.) An introduction to sample spaces, random variables, distributions and parametric statistics, sampling, and the concept of sampling distribution.
Advanced Statistics II. (Cross-listed with PSY 411.) Point estimation procedures are developed for a variety of parameters. Internal estimation and hypothesis testing are compared. Linear regression, correlation, and analysis of variance are studied.

Sociology of Youth. (Cross-listed with MPS 566.) Critical analysis of literature on non-delinquent youth; focus on the social contexts within which the transition to adulthood occurs.

Socialization. A synthesis of relevant psychological and sociological perspectives relating to the individual's acquisition of patterns of behavior and culture in social groups.

Social Psychology. The influence of group life on personality development, social interaction, and social behavior.

Social Inequality. An analysis of inequalities in power, wealth, and prestige with an emphasis on the concept of social class, trends in social mobility, and relationships to current social topics such as housing, welfare, and political participation.

Intergroup Relations. Theoretical perspectives on minority groups emphasizing processes of group formation, patterns of prejudice and discrimination, and an evaluation of methods to reduce prejudice and/or discrimination.

Collective Behavior. Study of social trends, social movements, communications, and crowd behavior. Emphasis on processes of social change, includes examination of historical and cross-cultural case material.

Organizations. (Cross-listed with MPS 553.) The functioning, premises, and consequences of formal organizations will be considered using a variety of perspectives.

Social Deviation. An analysis of the various theoretical positions and findings in the sociology of deviant behavior, emphasis upon such topics as the labeling of deviants, the analysis of deviant careers, patterns of deviant socialization, and the roles of agents or agencies of social control.

Middle Age and Aging. A look at the changing age composition of the population; meaning and societal definition of aging, the different types of responses to growing older, and the various Social Programs designed for the aged.

Sex Roles. Attention to the growing literature and empirical research on changing patterns in economic, psychological, and social outcomes for women and men. Consideration of various theories of sex differentiation and inequality.

Sociology of Knowledge. An analysis of the social forms of knowledge and the social processes by which individuals acquire this knowledge. The institutional organization and social distribution of knowledge.

Sociology of Religion. An historical and contemporary analysis of the interrelationship between religion and society. Emphasis upon the sacred-secular and church-sect typologies, new religious movements and religion's contributions to societal values, beliefs and meaning systems.

The Dilemma of the Modern Age. (Cross-listed with MLS 460.) The crisis of the individual's place in society and in the world itself—the dilemma of modernity—is exposed through Social Science, Philosophy, Literature, Art, and Music. The distinctive features of and responses to modern culture—individualism, alienation, and depersonalization—are illuminated through the multiple perspectives that form the modern mind.

Population Problems. This course examines basic population processes and their impact on society. Special attention is given to the interaction between population and the environment, how population characteristics effect social processes, and the nature of population problems in developing nations.
475 **Work, Leisure, and the Quality of Life.** This course will examine: (1) the nature, meaning, and history of work and leisure in western culture; and (2) the relationship of work and leisure to issues associated with the contemporary concept of "quality of life."

490 **Afro-American Culture.** (Cross-listed with EDU 450.) Intended for teachers in order that they may examine the contributions of the black community to American culture; gain a functional understanding of the social, economic and political development of blacks in America; gain an insight into problems created in America because of non-acceptance relationships.

495 **Special Topics in Sociology.** Special courses will be offered as students and faculty identify selected topics of common interest.

498 **Internship.** Students may be placed with agencies where they will have the opportunity to participate in activities such as research and counseling. Credit may vary but is subject to the limit of eight quarter hours.

499 **Independent Study.**

**Thesis Research**

500 **Thesis Research I.** The thesis research should culminate in the acceptance of a thesis proposal. Four quarter hours, one registration.

501 **Thesis Research II.** The student works independently toward the completion of the thesis. Four quarter hours, one registration.

601 **Candidacy Continuation.** Required of all students who are not registered for regular courses but who occasionally utilize University facilities during completion of course requirements and/or research. Non-credit. $40.00 per quarter.
Writing

FACULTY

Craig A. Sirles, Ph.D., Assistant Professor, (English) and Program Director ........................................ Northwestern University
Theodore G. Anton, M.A., M.F.A., Assistant Professor (English) ........................................ University of Iowa
Darsie Bowden, Ph.D., Assistant Professor (English) ........................................ University of Southern California
Carol Klimick Cyganowski, Ph.D., Associate Professor (English) ........................................ University of Chicago
Bruce Evensen, Ph.D., Assistant Professor (Communication) ........................................ University of Wisconsin, Madison
Richard Jones, M.A., M.F.A., Associate Professor (English) ........................................ University of Virginia, Vermont College
Donald Martin, Ph.D., Assistant Professor (Communication) ........................................ University of Texas, Austin
Gerald P. Mulderig, Ph.D., Associate Professor (English) ........................................ The Ohio State University
Barbara Speicher, Ph.D., Assistant Professor (Communication) ........................................ Northwestern University
Steve Whitson, Ph.D., Assistant Professor (Communication) ........................................ University of Pittsburgh

PURPOSES

By combining applied writing courses with courses that take historical and theoretical approaches to language, rhetoric, and writing, the Master of Arts in Writing offers practical writing experience within the broad context of a liberal arts degree.

The program seeks to meet the needs of a wide range of students, including the following:

• Professionals for whom writing is an essential component of their work.
• Aspiring professional writers.
• Teachers of writing at the secondary and post-secondary levels.
• Students seeking a master's-level foundation for further graduate work in English, rhetoric and composition, or mass communication.
• Returning students desiring an advanced degree in a liberal arts field.

PROGRAMS

Master of Arts: Writing

The Master of Arts in Writing at DePaul University is an interdisciplinary degree administered through the Department of English but drawing on courses offered in both the English and Communication Departments.

With the guidance of an advisor, a student may select courses in order to define a concentration within the degree that serves his or her educational or professional objectives.

MASTER OF ARTS: WRITING

Admission Requirements

Students with bachelor's degrees in any field will be considered for admission. For full admission, a student must also present the following:

A strong record of previous academic achievement.

A personal statement, from three hundred to five hundred words long, describing the student's objectives in applying to DePaul's M.A. in Writing program and his or her plans for the future.

A portfolio (approximately twenty-five pages) of representative nonfiction writing (for example, academic papers or work-related writing) for evaluation.
Degree Requirements

Achievement of Candidacy: An overall grade-point average of at least 3.0 in the student’s first four courses, which must be completed within two years of his or her admission to the program. One of these courses must be ENG 402 or ENG 407 (see below). Failure to meet these candidacy requirements will result in dismissal.

Courses: Successful completion of 48 quarter hours of graduate credit, including the following courses:

Two courses from each of the three main categories below ("Historical," "Theoretical," "Applied"). In the first of these categories, one of the following courses is required and should be taken as soon as possible after admission to the program:

ENG 402 History of English Prose Style, or
ENG 407 The Modern Tradition in Rhetoric

Three additional courses (twelve quarter hours) from any of the categories below (excluding MWR 499, "Thesis Research").

Three electives (twelve quarter hours) chosen from among the graduate courses in literature offered by the Department of English. Students pursuing the thesis option substitute four quarter hours of MWR 499, "Thesis Research," for one of these electives.

Examination: A passing grade on a written master’s examination. Normally taken after the student has completed all course work, the examination is based on a published reading list. Examinations are composed and evaluated by a committee of three members of the program faculty. If a student does not pass the examination, the M.A. in Writing Committee may recommend that the Dean grant permission for the student to write another examination on the next regularly scheduled examination date. The examination may not be taken more than twice.

Thesis Option

A thesis option is available to students who wish to pursue an extended independent project related to the historical, theoretical, pedagogical, or applied aspects of the program. A written proposal for a thesis must be submitted to the Program Director no later than the fifth week of the quarter preceding the quarter in which the student intends to begin work on the thesis. A student proposing a thesis must also procure an advisor from among the M.A. in Writing faculty to supervise and evaluate the thesis. A maximum of four quarter hours of MWR 499, "Thesis Research," may, with permission from the Program Director, be applied to the 48 quarter hours required for the degree, but students may, with permission from the Program Director, begin their thesis research by registering for MWR 498, "Independent Study."

Internships

A limited number of internships are available for qualified students who wish to acquire significant on-the-job experience in the writing and publishing fields. A maximum of four quarter hours of MWR 497, "Internship," may be applied to the 48 quarter hours required for the degree.
Courses

All courses carry four quarter hours of credit unless otherwise noted.

**Historical**

**ENG 401 History of the English Language.** A systematic study of the nature, history, and usage of the English language. The course traces the language from its origin to its present status in England and America.

**ENG 402 History of English Prose Style.** A survey of alternative theoretical approaches to the study of style, followed by intensive study of changes in the conventions of English prose from the Renaissance to the present.

**ENG 406 The Classical Tradition in Rhetoric.** A survey of Greek and Roman rhetorical theory. The course examines important definitions and discussions of rhetoric from Plato to Augustine, focusing on their implications for an understanding of the roles of rhetoric and writing in society today.

**ENG 407 The Modern Tradition in Rhetoric.** A survey of theories and practices in nineteenth- and twentieth-century rhetoric. The course examines psychological, social, and philosophical roots of contemporary rhetorics and the influence of scientific and literary studies on theories of discourse.

**CMN 443 History of Journalism.** An analysis of the significant changes in the American news media and the role of the press in important periods in American history. Attention is also given to the evolution of modern advertising and public relations.

**ENG 409 Topics in Writing.** Certain courses offered under this number will fulfill an elective in this category. See schedule for current offering.

**Theoretical**

**ENG 405 Composition Theory.** Explores the development of contemporary theories of written composition; focuses on contexts for writing, the writing process, and reader-writer relationships.

**ENG 408 Stylistics.** Theory and practice in examining features of prose style: linguistic, rhetorical, and literary perspectives on style.

**CMN 421 Rhetorical Criticism.** Focuses on the analysis of public discourse. Aesthetic, pragmatic, and ethical criteria are applied to speeches, advertisements, campaigns, and other forms of persuasive messages. Promotes a critical awareness of the messages that surround us and compete for our assent. Previous exposure to courses in communication, literature, philosophy, or religion is recommended.

**CMN 460 Communication Theory.** Explores four major theoretical models in communication and criteria for their evaluation.

**ENG 480 Teaching Writing.** Prepares English teachers to teach composition at the secondary and college undergraduate levels. The course develops methods of teaching composition based on contemporary theories of rhetoric, reading, and language skills acquisition.

**ENG 481 Teaching Literature.** Prepares English teachers to teach literature at the secondary and college undergraduate levels. The course develops methods of teaching all literary genres, addresses problems in literacy, and focuses on the transactional nature of reading and writing.

**ENG 409 Topics in Writing.** Certain courses offered under this number will fulfill an elective in this category. See schedule for current offering.
Applied

ENG 490 Writing for Magazines. Covers the range of skills necessary for magazine writing. Discussion of the elements of style, humor, research, concept, and imagery that characterize the literature of fact. Students investigate, compose, and edit finished magazine articles to be submitted for publication.

ENG 491 Science Writing. An introduction to the forms of current science writing, from technical descriptions to highly crafted magazine pieces. Students develop a final project that may be marketed to magazines or journals.

ENG 492 Writing Fiction. A course in writing short stories. Emphasis is placed on class discussion of student writing. Prerequisite: Previous creative writing experience and permission of instructor.

ENG 493 Writing Poetry. A course in writing and reading poetry. Emphasis is placed on class discussion of student writing. Prerequisite: Previous creative writing experience and permission of instructor.

ENG 494 Writing in the Professions. Improves writing skills useful in semi- and nontechnical professions; emphasis on style, tone, awareness of purpose and audience; effective memo, proposal, and report design.

ENG 495 Technical Writing. An advanced course in the issues, forms, and strategies of technical writing. Emphasizes audience analysis, organization, clarity and appropriateness of style, and document design. Offers experience in current computer applications in technical writing, including advanced word processing, computer graphics, desktop publishing, and professional editing and readability software.

ENG 496 Editing. An introduction to editing principles and practices in professional and technical fields.

ENG 409 Topics in Writing. Certain courses offered under this number will fulfill an elective in this category. See schedule for current offering.

Special Studies

MWR 497 Internship. Prerequisite: Written permission of the supervising faculty member and of the program director. Variable credit. A maximum of four quarter hours of internship credit may be applied to the 48 quarter hours required for the M.A. in Writing.

MWR 498 Independent Study. Prerequisite: Written permission of the supervising faculty member and of the program director. Variable credit.

MWR 499 Thesis Research. Prerequisite: Written permission of the supervising faculty member and of the program director. A maximum of four quarter hours of thesis research may be applied to the 48 quarter hours required for the M.A. in Writing.

MWR 502 Candidacy Continuation. Required of all students who are not registered for regular courses but who occasionally utilize University facilities during completion of course requirements and/or research. Non-credit. $40.00 per quarter.
SCHOOL OF EDUCATION
ADMINISTRATION
Joan M. Lakebrink, Ph.D.
Director
Louis T. Brusatti, C.M., D.Min.
Director of Graduate Programs
Charles Doyle, M.A.
Certification Officer

PURPOSE

FACULTY

PHILOSOPHY

ADMISSION REQUIREMENTS

PROGRAMS
Teaching and Learning
Curriculum Development
Educational Leadership
Human Development and Learning
Human Services and Counseling
Reading and Learning Disabilities

COURSES
School of Education

PURPOSE

DePaul University, founded on Judeo-Christian principles, continues to assert the relevance of these principles through higher education to modern man and woman. The University expresses these principles especially by passing on the heritage of St. Vincent dePaul: individual perfection manifested through purposeful involvement with other persons, communities and institutions. The School of Education manifests these principles in its purpose, and through its programs.

FACULTY

Joan M. Lakebrink, Ph.D., Professor and Director .......................... University of Wisconsin-Madison
Adelaide Bingham, Ph.D., Assistant Professor ................................. University of Wisconsin-Madison
Louis T. Brusatti, C.M., D.Min., Assistant Professor ....................... The Catholic University of America
Margaret Cahill-McGovern, M.A., Lecturer ..................................... DePaul University
Hal Campbell, M.S., Instructor .................................................. Western Illinois University
St. Therese Dugan, SND, Ph.D., Visiting Associate ......................... Kent State University
Urban H. Fleege, Ph.D., Professor Emeritus ................................. The Catholic University of America
Gerald Foster, Ph.D., Associate Professor ..................................... University of Iowa
Anna Marie Frank, M.S., Instructor ............................................ Western Illinois University
Zoila Garcia, M.S., Lecturer ..................................................... DePaul University
William E. Gorman, Ed.D., Professor Emeritus .............................. Northwestern University
Hariette Herrera, M.A., Lecturer ................................................ DePaul University
Sandra Jackson, Ph.D., Assistant Professor ................................. University of California-Berkeley
John Kaltsas, Ed.D., Lecturer ................................................... Vanderbilt University
Leila Kalmite, M.F.A., Lecturer .................................................. University of Chicago
Andrew T. Kopan, Ph.D., Professor ........................................... University of Chicago
John J. Lane, Ph.D., Professor .................................................. University of Wisconsin-Madison
Kathleen Lawler, M.Ed., Lecturer .............................................. DePaul University
Margaret Leonard, Ph.D., Lecturer ............................................ Northwestern University
Carole P. Mitchener, Ph.D., Assistant Professor ......................... University of Denver
Barbara Kimes Myers, Ph.D., Associate Professor ......................... University of Illinois, Champaign-Urbana
Roxanne F. Owens, M.Ed., Instructor ........................................ University of Illinois, Chicago
Peter Pereira, A.M.T., Associate Professor .................................. Harvard University
Barbara R. Radner, Ph.D., Associate Professor ............................. University of Chicago
Vera P. Rhimes, Ph.D., Assistant Professor .................................. Miami University
Sr. Frances Ryan, A.C.S.W., Ph.D., Associate Professor ............... Loyola University of Chicago
Kenneth Sarubbi, D.P.E., Associate Professor .............................. Indiana University
Hans A. Schieser, Ph.D., Professor Emeritus ................................ Loyola University of Chicago
Jose Solis, Ph.D., Assistant Professor ........................................ University of Illinois, Champaign-Urbana
John R. Taccarino, Ph.D., Associate Professor ............................. Northwestern University
Rafaela Weffer, Ph.D., Professor .............................................. Illinois Institute of Technology
Kathryn C. Wiggins, Ph.D., Assistant Professor ............................. Michigan State University
Nancy Williams, Ph.D., Assistant Professor ................................... Northwestern University
Carol T. Wren, Ph.D., Associate Professor .................................... Northwestern University
Barbara Zabroske, M.S., Lecturer .............................................. National-Louis University
The following faculty members from The Institute of Psychoanalysis teach in the Human Development and Learning Program:

Carol S. Sonnenschein, M.A., Lecturer and Director of The Human Development and Learning Program, Northwestern University
Andrew Boxer, Ph.D., Lecturer, University of Chicago
Bertram Cohler, Ph.D., Lecturer, Harvard University
Marlene Eisen, Ph.D., Lecturer, University of Chicago
Kay Field, M.A., Director Emeritus, Northwestern University
Martin Fine, M.D., Lecturer, Chicago Medical School
Daniel Frank, Ph.D., Lecturer, University of Chicago
Ruth Friedman, Psy.D., Lecturer, Illinois School of Professional Psychology
Richard Herbig, Ph.D., Lecturer, Loyola University
Edward Kaufman, M.S.W., Lecturer, University of Illinois
Margit Kir-Stimon, Ph.D., Lecturer, University of Illinois
Nan Knight-Birnbaum, M.S.W., Lecturer, Case Western Reserve University
Susan Litoff, M.S., Lecturer, Northwestern University
Nancy Marks, M.A., Lecturer, University of Chicago
Dennis McCaughan, Ph.D., Lecturer, University of Chicago
Heather Patay, M.A.T., Lecturer, Northwestern University
Charles Saltzman, B.S., Lecturer, Brooklyn College
Erika Schmidt, M.S.W., Lecturer, Simmons College
Marilyn Silin, M.A., Lecturer, University of Chicago
Rita Sussman, Ph.D., Lecturer, University of Chicago
Eileen Trafimow, Ph.D., Lecturer, Loyola University
Glorye Wool, M.D., Lecturer, University of Illinois

PHILOSOPHY

The faculty of the DePaul University School of Education assumes that contemporary educational settings require professionals who exercise skills, understanding; and, above all, sound judgment. The School embraces a holistic orientation toward education, and strives for the positive transformation of persons and society.

The School of Education seeks students with intellectual promise, social responsibility, and those personal leadership qualities appropriate to graduate level education.

In light of the urban, Catholic, and Vincentian mission of DePaul University, and the public need for quality education, the School of Education intends:

1. To prepare professionals to work in schools, and in settings which support the work of schools;
2. To provide practicing professional educators with degree programs, in-service programs, and other opportunities to develop advanced skills;
3. To provide the University community, professionals in related fields, and the public-at-large with programs and other opportunities for them to examine educational issues in a larger social and cultural context, and with the perspective of life-long learning.
4. To promote scholarly activity which may lead to the improvement of educational practices (e.g., quantitative and qualitative research, inquiries leading to understanding and insights into current practices or changes in education, projects resulting in innovation or improvement in schools, or collaborative endeavors with professionals in schools);
5. To sponsor programs of service to children and youth, as well as their families and communities, and to collaborate with private and public agencies in formulating and delivering these services.
Admission Requirements

A Bachelor’s degree conferred by an accredited institution.
A previous grade point average of 2.75 or above on a 4.00 scale.
Two years of successful teaching or other work experience for specific programs.
Two letters of recommendation from professors or supervisors.
One official transcript from all colleges and universities attended.
Interview with program advisor.
Evidence of adequate background for the program.

Program Requirements

Courses: All graduate programs require 48-64 quarter hours of course work, depending on
degree and concentration.
Research: Completion of a thesis and an oral defense before a committee of three faculty
members leads to a Master of Arts degree. The Master of Education degree requires two,
3,000 word papers related to course work, one which reviews literature in an area of interest,
the other an integrative paper relating theory and practice. Both papers are done in conjunc-
tion with course work and under the direction of a faculty member.

Certification Requirements

DePaul University School of Education offers approved programs for State of Illinois cer-
tification in five areas of study. This means students may be eligible for the following certifi-
cates upon completion of the respective programs:

- Type 03 K-9 Teaching
- Type 09 6-12 Teaching
- Type 10 Special (K-12): Learning Disabilities
- Type 73 School Service Personnel Certificate: Guidance
- Type 75 Administrative Certificate:
  General Supervisory
  General Administrative

Please note that state certificates include requirements beyond program requirements. For
example, a test of basic skills and a test of subject-matter knowledge is required. The test
is given at four regularly scheduled administrations per year. Students are advised to confer
with program faculty, the Certification Director, or the Director of Graduate Programs for fur-
ther information.

Certification is not automatic upon completion of a program. The student must apply. Forms
and procedural information are available in the School of Education.

Timeliness is important. Ordinarily only graduate work completed within the past ten years
is acceptable for purposes of applying courses for certification requirements. If the degree
was granted more than ten years past, the Graduate Director in consultation with program
faculty may grant certification recommendation upon the successful completion of appropriate
courses and/or comprehensive examinations in the program. In all instances current certifi-
cation requirements must be met.

TEACHING AND LEARNING

This graduate program prepares individuals for a teaching career either in elementary (grades
K-9) or secondary (grades 6-12) schools. Students may seek certification in the following areas:
Computer Science, English, History, Social Science, Mathematics, Modern Languages (French,
German, and Spanish), or Science (Biology, Chemistry, or Physics). The program is designed for college graduates with an undergraduate major in liberal arts who now wish to become teachers.

Students entering the program must be able and willing to devote themselves to a program requiring 100 hours of daytime clinical experiences in schools. Some of these school-based, clinical hours are done in conjunction with methodology courses which require students to spend a half-day each week in a school. Other clinical hours are fulfilled at the initiative of the student. In addition, the student must spend a minimum of 12 weeks in full-time student teaching.

The program includes five distinctive features: 1) Becoming a teacher is viewed as a developmental process continuing at least through the first year of teaching. 2) Multiculturalism is infused throughout the curriculum. 3) Clinical experiences are an integral part of the curriculum. 4) Students are exposed to a variety of educational theories. 5) The program includes a research component as a basis for further professional development.

Students lacking undergraduate requirements necessary for Illinois State Certification will have to complete those requirements.

**DEGREE PROGRAMS**

**Master of Arts or Master of Education:**
Teaching and Learning
  - Elementary Concentration
  - Secondary Concentration

**Elementary Concentration**

**Degree Requirements:**

**COURSES:** Master of Education: 2 courses and Student Teaching (56 quarter hours)
Master of Arts: 13 courses and Student Teaching (60 quarter hours)

**INTRODUCTORY COURSES** (8 quarter hours)
- CDG 409 Professional Practice in Elementary Schools
- CUG 403 Human Development and Learning

**PRACTICUM COURSES** (20 quarter hours)
- CDG 415 Teaching and Learning Elementary School Science
- CDG 416 Teaching and Learning Elementary School Mathematics
- CDG 418 Learning Through the Arts
- CDG 427 Curriculum in Language Communications
- RSL 424 The Psychology and Acquisition of Reading

**SPECIAL EDUCATION** (4 quarter hours)
- RSL 446 Psychology and Education of the Exceptional Child

**FOUNDATIONS OF EDUCATION** (8 quarter hours)
- CUG 400 Educational Research Design and Statistics

Choose ONE of the following:
- CUG 408 Education and the Social Order
- CUG 601 Reflective Seminar: Sociology of Education
- CUG 602 Reflective Seminar: Philosophy of Education

**STUDENT TEACHING** (8 quarter hours)
- CDG 585 Elementary Student Teaching and Seminar

**INDUCTION YEAR** (8 quarter hours)
- CDG 610 Induction into the Teaching Profession: Elementary
Choose ONE of the following:
  CDG 612  Teaching as Research
  CDG 613  Negotiating Curriculum in the Classroom

**Thesis and Oral Examination or Papers**

Master of Arts: CDG 589: Thesis Research in Teaching and Learning: Elementary. This master's thesis is written to fulfill the requirements of this course. An oral examination takes place on the thesis.

Master of Education: Two papers in conjunction with course work

Review of Literature

Integrative Paper

**Secondary Concentration**

**Degree Requirements**

**COURSES:** Master of Education: 12 courses and Student Teaching (56 quarter hours)

Master of Arts: 13 courses and Student Teaching (60 quarter hours)

**INTRODUCTORY COURSES (8 quarter hours)**
  CDG 405  Professional Practice in Secondary Schools
  CUG 403  Human Development and Learning

**PRACTICUM COURSE (4 quarter hours)**
  Teaching in Content-Field

**CONTENT COURSES (12 quarter hours)**

These courses are chosen by the student in conjunction with a faculty advisor.

**READING AND SPECIAL EDUCATION (8 quarter hours)**
  R&L 446  Psychology and Education of the Exceptional Child
  CDG 525  Reading, Writing, and Communicating Across the Curriculum

**FOUNDATIONS OF EDUCATION (8 quarter hours)**
  CUG 400  Educational Research Design and Statistics

Choose ONE of the following:
  CUG 408  Education and the Social Order
  CUG 601  Reflective Seminar: Sociology of Education
  CUG 602  Reflective Seminar: Philosophy of Education

**STUDENT TEACHING (8 quarter hours)**
  CDG 590  Secondary Student Teaching and Seminar

**INDUCTION YEAR (8 quarter hours)**
  CDG 611  Induction into the Teaching Profession: Secondary

Choose ONE of the following:
  CDG 612  Teaching as Research
  CDG 613  Negotiating Curriculum in the Classroom

**Thesis and Oral Examination or Papers**

Master of Arts: CDG 589: Thesis Research in Teaching and Learning: Secondary. This master's thesis is written to fulfill the requirements of this course. An oral examination takes place on the thesis.

Master of Education: Two papers in conjunction with course work

Review of Literature

Integrative Paper
EDU

CURRICULUM DEVELOPMENT

Curriculum design and implementation have become increasingly significant concerns for schools, hospitals, community organizations, businesses and industries, all confronted with the necessity of keeping their students or employees up to date in a milieu of fast-moving, social and technological change. Continuing education and training are being viewed as major responsibilities by schools, institutions and businesses, and by museums and civic agencies that are perceived as educational organizations. A growing number of senior citizens have far more leisure time available to them and are contributing to the demand for adult education programs.

There are important challenges in responding to this growing demand. The educational skills needed are in many respects similar to those already well developed in the public schools; in other respects they are quite different.

Both the Master of Arts and the Master of Education in Curriculum Development offer essential courses which include:

- **DELIBERATIVE SKILLS** involving the clear formulation of curriculum problems;
- **DEVELOPMENT SKILLS** in program planning, content selection and the creation as well as the arrangement of materials;
- **EVALUATION SKILLS**;
- **KNOWLEDGE about CURRICULAR DESIGNS**, their underlying assumptions and implications for different settings;
- **KNOWLEDGE OF INSTRUCTIONAL METHODOLOGIES** and their influence on the success of curriculum planning.

The structuring of this program should include a set of carefully chosen electives which support the student's career goals. Usually this course sequence is especially designed as a career emphasis in light of personal goals and interests. Program development is done in conjunction with a faculty advisor. When the complete rationale for the course sequence is approved a copy is placed in the student's Graduate Office file.

DEGREE PROGRAMS

Master of Arts or Master of Education:
Curriculum Development

Degree Requirements:

What follows is the basic structure of the Curriculum Development program.

**COURSES:** 52 quarter hours

Three Foundations courses (12 hours)

- **CUG 400** Educational Research Design and Statistics

Choose one of the following:

- **CUG 401** Advanced Developmental Psychology
- **CUG 402** Psychology of Learning
- **CUG 403** Human Development and Learning

Choose one of the following:

- **CUG 408** Education and the Social Order
- **CUG 601** Reflective Seminar: Sociology
- **CUG 602** Reflective Seminar: Philosophy
Three Curriculum Design and Evaluation courses chosen from the following (12 hours):

CDG 485  Curriculum/Program Evaluation
CDG 487  Introduction to Curriculum Deliberation
CDG 488  Designing and Interpreting Curriculum
CDG 489  Designing and Interpreting Curriculum
CDG 524  Teaching English as a Second Language
CDG 525  Reading, Writing, and Critical Thinking Across the Curriculum

One course in Supervision or Human Relations from the following (4 quarter hours):

A&S 498  Principles and Practices of Supervision
A&S 590  Organizational Development
HSC 458  Facilitating Human Services Through the Group Process
HSC 500  Communication Strategies or Effective Human Communication

One Course in Instructional Methodology (4 quarter hours and chosen with consent of a faculty advisor from among the following or another appropriate course in light of a specific concentration.)

CDG 489  Instructional Strategies to Develop Critical and Creative Thinking
CDG 418  Learning Through the Arts
CDG 415  Teaching and Learning Elementary Social Science
CDG 416  Teaching and Learning Elementary School Mathematics
CDG 427  Curriculum in Language Communication

Four (M.A.) or Five (M.Ed.) Career Emphasis courses chosen with the consent of a faculty advisor (16 or 20 quarter hours) including one practicum.

One course (4 quarter hours) from:

Master of Education: Elective Course (one of five Career Emphasis courses)

Master of Arts: A&S 589 Thesis Research in Curriculum Development

**Thesis Oral Examination or Papers**

Master of Arts: A&S 589: Thesis Research in Curriculum Development. The master’s thesis is written to fulfill the requirements of this course. Oral examination on thesis.

Master of Education: Two papers in conjunction with course work:

Review of Literature

Integrative Paper

**EDUCATIONAL LEADERSHIP**

The major purpose of the Educational Leadership program is to prepare educational personnel for administrative and supervisory positions in schools, business, and a variety of human services agencies. These programs are

DISCIPLINE-BASED: concepts, research findings, and models of inquiry in social sciences;

THEORY-BASED: relevant theories of organization, leadership, and curriculum;

PROBLEM-BASED: contemporary issues and problems likely to confront administrators and supervisors;

CAREER-BASED: examination of administrative and supervisory functions and objectives within a variety of settings and for different purposes.
DEGREE PROGRAMS

Master of Arts or Master of Education:

Educational Leadership

Administration and Supervision: Certification Concentration
Administration and Supervision: Non-Certification Concentration
Catholic School Leadership Concentration
Physical Education Concentration

Administration and Supervision Certification Concentration

Degree Requirements:

COURSES: minimum of 12 courses (48 quarter hours)

Foundations (12 hours)

CUG 400 Educational Research Design and Statistics
CUG 401 Advanced Developmental Psychology
OR
CUG 402 Psychology of Learning
CUG 408 Education and the Social Order

Curriculum (4 hours)

CDG 485 Curriculum/Program Evaluation
CDG 487 Introduction to Curriculum Deliberation
CDG 488 Designing and Interpreting Curriculum

Administration and Supervision (20 quarter hours)

A&S 491 Administrative Theory and Behavior
A&S 494 School Finance
A&S 495 School Law
A&S 496 Home, School, Community Relations
A&S 498 Principles and Practices of Supervision

Electives (8 quarter hours)

A&S 492 The Principalship
A&S 499 Clinical Supervision
A&S 590 Organizational Development
A&S 593 Practicum in Educational Leadership
A&S 594 Internship in Educational Leadership
A&S 596 Personnel Administration
A&S 597 Politics of Education

Master of Education: Elective Course

Courses in cognate disciplines: students who have career needs in a subject matter field may substitute one course in that field. This course needs the written approval of the program advisor.

Thesis and Oral Examination or Papers

Master of Arts: A&S 599: Thesis Seminar in Education Leadership. The master's thesis is written to fulfill the requirements of this course. An oral examination on thesis is required.

Master of Education: Two papers with course work:

Review of Literature
Integrative Paper
ILLINOIS ADMINISTRATIVE CERTIFICATE

Students holding valid Illinois teaching certificates with two years successful teaching experience may be eligible for the Illinois Administrative Certificate upon completion of the program. See the Director of Graduate Programs for information.

Administration and Supervision: Non-Certification Concentration

Degree Requirements:

COURSES: minimum of 12 courses (48 quarter hours)
Foundations (12 hours)

CUG 400 Educational Research Design and Statistics
CUG 401 Advanced Developmental Psychology
OR
CUG 402 Psychology of Learning
CUG 408 Education and the Social Order

Curriculum (4 hours)
CDG 485 Curriculum/Program Evaluation
CDG 487 Introduction to Curriculum Deliberation
CDG 488 Designing and Interpreting Curriculum

Administration and Supervision (12 quarter hours)

A&S 491 Administrative Theory and Behavior
A&S 590 Organizational Development
A&S 498 Principles and Practices of Supervision

Core Program (16 or 20 hours)
The Core Program is developed in light of student career goals and objectives. It is done in conjunction with a faculty advisor and with the approval of the Director of Graduate Programs. It must include the following:

A&S 593 Practicum in Educational Leadership

Master of Education: Elective Course

Thesis and Oral Examination or Papers
Master of Arts: A&S 599: Thesis Seminar in Educational Leadership. The master's thesis is written to fulfill the requirements of this course. An oral examination on thesis is required.
Master of Education: Two papers with course work:
Review of Literature
Integrative Paper

Catholic School Leadership Concentration

Degree Requirements:

COURSES: minimum of 12 courses (48 quarter hours)
Foundations (12 hours)

CUG 400 Educational Research Design and Statistics
CUG 401 Advanced Developmental Psychology
CUG 402 Psychology of Learning

Curriculum (4 hours)
CDG 488 Designing and Interpreting Curriculum
Administration and Supervision (20 quarter hours)

A&S 491 Administrative Theory and Behavior
A&S 494 School Finance
A&S 495 School Law
A&S 496 Home, School, Community Relations
A&S 498 Principles and Practices of Supervision
A&S 492 The Principalship
A&S 499 Clinical Supervision
A&S 590 Organizational Development in Catholic School Administration

Electives (12 quarter hours)

A&S 593 Practicum in Educational Leadership
A&S 594 Internship in Educational Leadership
A&S 596 Personnel Administration
A&S 597 Politics of Education

Master of Education: Elective Course

Thesis and Oral Examination or Papers

Master of Arts: A&S 599: Thesis Seminar in Education Leadership. The master's thesis is written to fulfill the requirements of this course. An oral examination on thesis is required.

Master of Education: Two papers with course work:

Review of Literature
Integrative Paper

Physical Education Concentration

Degree Requirements:

COURSES: minimum of 12 courses (48 quarter hours)

Foundations (12 hours)

CUG 400 Educational Research Design and Statistics
CUG 401 Advanced Developmental Psychology
OR
CUG 402 Psychology of Learning
CUG 408 Education and the Social Order

Administration and Supervision (16 quarter hours)

A&S 491 Administrative Theory and Behavior
A&S 495 School Law
A&S 496 Home, School, Community Relations
OR
HSC 500 Communication Strategies for Effective Human Communications
A&S 498 Principles and Practices of Supervision

Physical Education (16 quarter hours)

PE 450 Psychology of Sport Behavior and Athletic Performance
PE 451 Current Issues and Trends in Athletics and Physical Education
PE 452 Exercise Science and Sport
PE 453 Advanced Health concepts
PE 454 Care of the Athlete

Course substitutions may be made with consent of the advisor
Master of Education: Elective Course

**Thesis and Oral Examination or Papers**

Master of Arts: A&S 599: Thesis Seminar in Education Leadership. The master's thesis is written to fulfill the requirements of this course. An oral examination on the thesis is required.

Master of Education: Two papers with course work:

- Review of Literature
- Integrative Paper

**Illinois Athletic Coaching Certification**

Students may be eligible for coaching certification in the State of Illinois through the Illinois Athletic Coaching Certification Board upon completion of the program.

- **PE 450** Psychology of Sport Behavior and Athletic Performance
- **PE 451** Current Issues and Trends in Athletics and Physical Education
- **PE 452** Exercise Science and Sport
- **PE 456** Medical and Legal Aspects of Coaching
- **PE 457** Advanced Coaching Theories and Techniques

**HUMAN SERVICES AND COUNSELING**

The Human Services and Counseling programs present a core of courses designed to provide professionals with skills, mastery and competencies which will enable them to provide comprehensive counseling and consulting services in many educational and community environments.

Some of the specific career opportunities for Human Services and Counseling graduates include private and public school elementary and secondary counseling, ministerial counseling, teaching, work in social welfare and community agencies, junior college personnel work, human relations consulting, migrant family counseling, general hospital service counseling, work in institutional care settings, counseling and aging, and marriage and family counseling.

The Human Services and Counseling programs are competency and outcome based in their approach. Emphasis is placed on assisting students from a variety of professional disciplines in developing 1) theory and practice related to personal identity and the human life cycle, 2) leadership skills which facilitate understanding of and influence within organizational systems, 3) effective communication skills, and 4) actualizing human potential through group and individual counseling approaches.

**DEGREE PROGRAMS**

- Master of Arts or Master of Education
- Human Services and Counseling

**Human Services Management Concentration**

- Human Services Management Concentration
- School Guidance Concentration
- Higher Education, Agencies and Family Concerns Concentration
Human Services Management Concentration

Degree Requirements:

COURSES: minimum of 12 courses (48 quarter hours)

CUG 400 Educational Research Design and Statistics
CUG 401 Advanced Developmental Psychology
OR
CUG 402 Psychology of Learning
HSC 452 Seminar in Human Services Organization
HSC 453 Human Services Information Systems
OR
HSC 468 Issues in Human Services and Counseling
HSC 458 Facilitating Human Services through the Group Process
HSC 462 Counseling Theory and Practice
HSC 464 Human Services Consulting
A&S 590 Organizational Development
A&S 498 Principles and Practices of Supervision
A&S 596 Personnel Administration
HSC 583 Practicum In Managing the Human Services
HSC 569 Thesis Research in Managing the Human Services

Master of Education: Elective Course in place of HSC 569

Thesis and Oral Examination or Papers

Master of Arts: HSC 569: Thesis Research in Managing the Human Services. The master's thesis is written to fulfill the requirements of this course. An oral examination on the thesis is required.

Master of Education: Two papers with course work
Review of Literature
Integrative Paper

School Guidance Concentration

Degree Requirements:

COURSES: Master of Arts: minimum of 12 courses plus Internship/Thesis Research I and II (54 quarter hours)
Master of Education: minimum of 12 courses plus Internship I and II (54 quarter hours)

Twelve Courses (48 quarter hours)

CUG 401 Advanced Developmental Psychology
CUG 408 Education and the Social Order
CUG 400 Educational Research Design and Statistics
HSC 453 Human Services Information Systems
HSC 452 Seminar in Human Services Organization
HSC 458 Facilitating Human Services through the Group Process
HSC 461 Use of Tests in Appraisal and Development
HSC 462 Counseling Theory and Practice for Human Services
HSC 463 Techniques of Human Services and Counseling in Elementary and Junior High School
HSC 468 Current Issues in Human Services and Counseling
HSC 456 Counseling the College Bound Student
HSC 459 Clinical Studies in Human Services Counseling
Thesis/Research Project and Oral Examination or Papers
Master of Arts Internships and Thesis (6 quarter hours)

HSC 553 Internship/Thesis Research in Human Services and Counseling I: Guidance
HSC 554 Internship/Thesis Research in Human Services and Counseling II: Guidance

During Internship I and II the student completes a thesis/research project under the direction of the field supervisor and University director. An oral examination takes place on the thesis.

Master of Education Internship (6 quarter hours)

HSC 553 Internship in Human Services and Counseling I: Guidance
HSC 554 Internship in Human Services and Counseling II: Guidance

Master of Education papers with course work: Review of Literature
Integrative Paper

Illinois School Service Personnel Certificate
Students holding valid teaching certificates may be eligible for the Illinois State Certificate in School Service Personnel with an endorsement in Guidance upon completion of the appropriate master's sequence.

Agencies, Family Concerns and Higher Education Concentration

Degree Requirements:

COURSES: minimum of 12 courses (48 quarter hours)

CUG 401 Advanced Developmental Psychology
CUG 400 Educational Research Design and Statistics
HSC 468 Issues in Human Services and Counseling
HSC 453 Human Services Information Systems
HSC 458 Facilitating Human Services through the Group Process
HSC 459 Clinical Studies in Human Services and Consulting HSC 461 Use of Tests in Appraisal and Development
HSC 462 Counseling Theory and Practice
HSC 572 Practicum in Human Services and Counseling Agencies, Higher Education, and Family Concerns
HSC 559 Thesis Research in Human Services and Counseling

Master of Education: Elective Course in place of HSC 559

(A minimum of two of the following courses chosen in consultation with your advisor)

HSC 452 Seminar in Human Service Organization
HSC 465 Principles and Practices of Higher Education Personnel
HSC 555 Human Services and Aging Processes
HSC 456 Counseling the College-Bound Student
HSC 556 Family and Marriage Counseling
HSC 566 Assessment and Treatment of Chemical Dependency

Thesis and Oral Examination or Papers

Master of Arts: HSC 559: Thesis Research in Human Services and counseling. The master's thesis is written to fulfill the requirements of this course. An oral examination on the thesis is required.

Master of Education: Two papers with course work
Review of Literature
Integrative Paper
HUMAN DEVELOPMENT AND LEARNING

A joint degree program between The School of Education and The Institute for Psychoanalysis.

The program is designed to respond to the changing educational needs of our society. The two-year, part-time program prepares professionals for leadership roles in early childhood, primary, elementary and secondary school education. The program provides students with a comprehensive understanding of human development within the context of learning and education. A clinical and theoretical approach to psychodynamic, cognitive, behavioral and educational perspectives is applied toward understanding diagnosis and intervention strategies. The clinical component integrates theory and practice through planned observations, personal experience, individual supervision of student cases and supervised internships in a variety of work settings. Course work addresses biological, psychological and social-cultural factors as they relate to problems in school and in learning.

Students in each entering class proceed through the courses taught at the Institute for Psychoanalysis as a group. To promote the exchange of ideas, problems, and experiences, these courses are offered in seminar style. In their course work at DePaul University students will encounter professional educators and others working on master's level programs.

The Human Development and Learning Program accept students for a fall term class each year.

Degree Requirements:

COURSE: minimum of 13 (52 quarter hours)

Courses taken at The Institute for Psychoanalysis

IP 510 Life Course Personality Development I: Infancy through Middle Childhood
IP 520 Life Course Personality Development II: Adolescence through Older Adulthood
IP 530 Psychological and Neurological Disorders of the Learning Process
IP 540 The Diagnostic Process and the Learning Experience
IP 550 The Family and Life Course Development
IP 560 Dynamics of Small and Large Groups
IP 501 Field Placement—Internship I (2 quarter hours)
IP 502 Field Placement—Internship II (2 quarter hours)
IP 500 Integrative Seminar (non-credit)

Courses taken at DePaul University

RGL 404 Child Rearing Across Cultures
RGL 424 The Psychology and Acquisition of Reading
AEG 590 Organizational Development
CUG 400 Educational Research Design and Statistics
CDG 485 Curriculum/Program Evaluation
OR
CDG 487 Introduction to Curriculum Deliberation
OR
CDG 488 Designing and Interpreting Curriculum

Master of Education: Elective Course

Thesis and Oral Examination or Papers

Master of Arts: CDG 589 Thesis Research in Human Development and Learning. The master's thesis is written to fulfill the requirement of this course. An oral examination on the thesis is required.

Master of Education: Two papers with course work

Review of Literature
Integrative Paper

186
READING AND LEARNING DISABILITIES

Combining the disciplines of Special Education (Learning Disabilities) and Reading Education (Developmental and Remedial Reading, the 13 course sequence leads to either a Master of Arts or a Master of Education degree. Beginning with a theoretical understanding of both fields, course work proceeds to develop for the graduate student, assessment techniques and diagnostic strategies that produce appropriate remedial programming. Course work focuses on a theoretical understanding of reading and learning disabilities in individuals of all ages, and practica courses provide experiences in the assessment, diagnosis, and remediation of children and adults with reading and learning disabilities. Course work culminates in 1) the completion of a thesis and an oral defense before a committee of three faculty members (Master of Arts), or 2) the completion of two papers as extensions of course work: Review of Literature and Integrative Paper (Master of Education). Graduates of the program are entitled to apply for Type 10 State of Illinois Certification in Learning Disabilities.

CENTER FOR READING AND LEARNING

Operated by DePaul University in conjunction with this degree program in Reading and Learning Disabilities, the Center provides diagnostic and remedial services for children and adults with specific reading and learning disabilities. Graduate students who are enrolled in advanced courses provide assessment, diagnostic, and remedial services to children and adults in the Chicago area. These advanced graduate students, supervised by trained instructors and professors, are taught these skills through observation and participation.

DEGREE PROGRAMS

Master of Arts or Master of Education:
Reading and Learning Disabilities
Certifications, Endorsements, and Approvals
Type 10 Certification: Learning Disabilities
Supervisory Endorsement
Reading Specialist Approval
Behavioral Disorders Approval
Specializations:
Bilingual/Multicultural Learning Disabilities

Reading and Learning Disabilities
Degree Requirements:
COURSES: Minimum of 13 courses (52 quarter hours)
Twelve Courses (48 quarter hours)
CUG 400 Educational Research Design and Statistics
CUG 402 Psychology of Learning
CUG 408 Education and the Social Order
R&L 441 The Psychology of Reading
R&L 442 Characteristics of the Exceptional Learner
R&L 443 Psychological Tests and Methods in Diagnosis
R&L 444 Characteristics and diagnosis of Reading and Learning Disabilities
R&L 445 Remediation of Reading and Learning Disabilities
EDU

R&L 451 Characteristics and Diagnosis of Behavioral Disordered Children and Adolescents
R&L 542 Testing and Diagnosis of Reading and Learning Disabilities: Practicum I
R&L 543 Diagnosis and Remediation of Learning Disabilities: Practicum II
R&L 544 Diagnosis and Remediation of Learning Disabilities: Practicum III

Master of Education: one elective course in place of R&L 469

Thesis and Oral Examination or Papers
Master of Arts: R&L 469: Thesis Research in Reading and Learning Disabilities. The master’s thesis is written to fulfill the requirements of this course. An oral examination on the thesis is required.

Master of Education: Two papers with course work

Review of Literature
Integrative Paper

Clinical Hours
The program requires 150 clinical hours working with students with reading and learning disabilities.

Bilingual (Spanish) Multicultural Learning Disabilities
In addition to the Reading and Learning Disabilities course, students may specialize in Bilingual Learning Disabilities. If certification in Bilingual Education is desired, see a faculty advisor for details.

Admissions Requirements
In addition to those requirements stated at the beginning of the School of Education Bulletin the following are necessary:

- Proficiency in both English and Spanish
- Teaching Certificate from the State of Illinois

Specialization Requirements
COURSE: Five courses (20 quarter hours)

- R&L 404 Child rearing Across Cultures
- R&L 406 Psychology and Education of the Bilingual Child
- R&L 407 Non-Discriminatory Tests-SOMPA System
- R&L 425 Teaching Reading in First and Second Language
- R&L 466 First and Second Language Acquisition
- CDG 524 Teaching English as a Second Language

NON-DEGREE
For non-degree seeking students who wish to increase their knowledge and experience in the field of education, credit for designated courses is available.
Certification Requirements

In order to achieve a Type 10-Learning Disabilities Certificate, the individual must possess a valid teaching certificate from the State of Illinois (Elementary, Secondary, or Special), and two years teaching experience by the time one applies for the Type 10 Certification.

See the Certification Officer or Academic Advisor for information concerning the Supervisory Endorsement, Reading Specialist Approval, and Behavior Disorders Approval.

Courses of Study

FOUNDATIONS OF EDUCATION (CUG)

Educational foundations courses—extracted from the disciplines of history, philosophy, psychology, sociology, and research methodology—are an integral part of all degree programs. In this respect the educational foundations program is composed of humanistic and behavioral studies. These studies have as their major purpose providing students with a set of contexts in which educational problems can be understood and interpreted.

As in basic programs, the problems of education are studies with respect to their historical development and the sociological and philosophical issues to which they are related. They are also studies with respect to findings and methods of behavioral and social sciences in the areas of research methodology and statistics, learning theories, and developmental psychology.

CUG 400 Educational Research Design and Statistics. Content of the course includes principles of research design, bibliographical skills and statistical procedures for the interpretation of educational data.

CUG 401 Advanced Developmental Psychology. Current research and theories in human development relating to motivation, personality, learning, and socialization. Case studies and an analysis of various developmental problems.

CUG 402 Psychology of Learning. Study of the learning-teaching process with specific emphasis on the person as a learner, human capacity and potential, learning theories and materials, motivation, concept formation, and behavior.

CUG 403 Human Development and Learning. This course starts by studying learners and learning in classrooms and other educational settings. Each student will be required to observe and interview one or more learners as individuals as well as members of multiple social contexts: peer, classroom, school community. Building on these investigations, the course will examine several theories of learning and of human development and then develop a framework for comparing and contrasting theories. This framework will later be used to understand the strengths and limitations of the theories presented in methods and other courses.

CUG 404 Child Rearing Across Cultures. Study of child rearing practices, the effects of culture on cognitive development and the implications for teaching strategies for the bilingual child.

CUG 405 History and Philosophy of Bilingual Education.

CUG 407 Non-Discriminatory Tests—SOMPA System. Administration and interpretation of diagnostic test using a pluralistic model to make testing procedures more responsive to cultural pluralism. (Case Study Approach)
CUG 408 Education and the Social Order. A study of social forces that impinge upon the educational enterprise and analysis of the relationship of major social problems in urban education with emphasis on their social, economic, political, historical, and philosophical dimensions.

CUG 450 Dynamics of African-American Culture. (Cross-listed with Sociology 490) This course is intended for those interested in cultural-and human relations in order that they may examine the contributions of the black person to American Culture; gain a functional understanding of the social, economic, and political development of the black person on America itself.

CUG 461 Use of Tests in Appraisal and Development. Detailed analysis of intelligence, aptitude, personality, and achievements tests used with groups and individuals. The course is intended to familiarize students with various appraisal procedures and their utilization. Attention is given to the development of the institutional testing program.

CUG 527 Comparative Education. Studies of School systems outside the United States, their methods, curriculum and achievements.

CUG 601 Reflective Seminar: Sociology. This seminar will start with an analysis of the historical, structural, and cultural origins of the American educational system. While not simply "history" of American education, it will focus on the political, social, and economic determinants of educational thinking and behavior. Specific attention will be given to relationships between school culture and ethnicity, nationality, gender, or class. The seminar will explore social structures within schools and classrooms, in particular, the ways in which the behavior of students, teachers, and administrators is shaped by the elements of life in an organization. Readings will treat life in schools as lived culture and experience, and will emphasize ethnographic studies. These descriptions will be used to generate insights into processes at work in school settings. Each student will be expected to do a small ethnographic study.

CUG 602 Reflective Seminar: Philosophy. Recent controversy over the quality and direction of American education has stimulated widespread debate over questions once considered the preserve of academic philosophers. This seminar will help students to reflect upon: the fundamental aims of education, the nature of genuine teaching and learning, the knowledge most worth having, and the political values embodied in the classroom and school. In addition to reading some of the recent best sellers, students will read classical and modern philosophers who have systematically addressed these issues. Students will be expected to use philosophical arguments and methods as a set of tools for engaging questions that arise from the experience of teaching.

EARLY CHILDHOOD EDUCATION (ECE)

ECE 304 History and Administration of Early Childhood Education. Survey course of early childhood history, philosophy and programs. Discussion of administration and finance in early childhood educational settings. Includes principles and practices of early child care and development. It requires observation studies on children.

ECE 307 Speech and Language Development of Young Children. Development of young children's speech and language including techniques and materials for use in assessing and assisting this development.

ECE 309 Study of Preschool Exceptional Child Growth and Development. Study and analysis of variations in the preschool child's development including creative, gifted, exceptional, handicapped and learning disabled children. (Prerequisite: ECE 290 or permission of the instructor)
TEACHING AND LEARNING and CURRICULUM DEVELOPMENT (CDG)

CDG 405 Professional Practice in Secondary Schools. This course is an introduction to the professional world of secondary school teaching. In this course students develop the knowledge and skills for being a reflective practitioner. Students focus on understanding themselves and their behaviors in teaching situations with adolescents in schools. These insights combined with subject matter knowledge guide the development of a curriculum unit that integrates planning skills, teaching strategies, classroom management, and evaluation techniques. Daytime clinical hours are required during this course.

CDG 406 The U.S. Macroeconomy and Chicago. (Cross-listed with ECO 406) Profile of Chicago economy with emphasis on its development and current structure and contemporary links to international trade. The course will present principles of economics in terms of the Chicago economy and the national economy.

CDG 409 Professional Practice in Elementary Schools. Using social studies as an example, this course presents the teacher as decision maker in the elementary classroom setting. Students will develop a framework for considering the many factors involved in planning curriculum and instruction. A culminating activity will give students practice in applying principles and strategies to create an interdisciplinary unity with social studies as the primary subject area. Daytime clinical hours are required during this course.

CDG 410 The Psychology of Learning Mathematics and Science. This course will develop a rationale for teaching mathematics and science in the elementary grades using Piaget's theories of cognitive development. The theories will be illustrated by experiments and practical activities. Students will also be expected to do clinical observations of children engaged in Piagetian tasks. Piaget's principles and terms will then be compared with those of other learning theories.

CDG 411 Science Processes I. This course will use common, everyday materials to study naturally occurring phenomena. Students will be expected to learn about the processes and content of science by becoming actively involved in doing science. Activities will cover topics in biology, chemistry, and physics.

CDG 412 Science Processes II. A continuation of Science Processes I with the same emphasis on active involvement and the processes of scientific inquiry. Naturally occurring phenomena which are not experienced in everyday living will be the objects of study.

CDG 413 Foundations of Mathematics: Geometry. This course will use the Logo computer language to investigate topics in Euclidean geometry and topology from the perspective of a "turtle" moving in a plane. Closed paths, space filling designs, mazes, and some spherical geometry will be included along with the topics normally included in the K-9 curriculum. Emphasis will be placed on developing understanding of key concepts such as symmetry, interior congruence, and similarity, as well as enriching mathematics curricula.

CDG 414 Foundations of Mathematics: The Real Numbers. This course will use a variety of physical materials to develop the fundamental concepts underlying the system of real numbers and its subsystems (whole numbers, integers, and rational numbers). Emphasis throughout will be placed on the way in which embodiments of mathematical concepts can be used to facilitate learning.
CDG 415 Teaching and Learning Elementary School Science. An introduction to materials, methods, and strategies for helping students in grades K-8 become scientifically literate; i.e., to understand the nature of science and its impact on technology and science. Particular attention will be given to theoretical views about how children learn science, the proper use of materials and equipment, the development of scientific thinking, e.g., skills in observing, classifying, collecting, and interpreting data; questioning strategies, and ways to assess student progress. Daytime clinical hours are required during this course.

CDG 416 Teaching and Learning Elementary School Mathematics. An introduction to materials, methods, and strategies for helping students in grades K-8 become mathematically literate; i.e., for helping elementary students to value mathematics, to become confident in their mathematical abilities, to attack and solve mathematical problems, and to reason and communicate mathematically. Particular attention will be given to the theoretical views about how children learn mathematics, the proper use of manipulative materials, the development of mathematical thinking, e.g., skills in estimation, pattern recognition, or special perception; the use of technology, and ways to assess student progress. Daytime clinical hours are required during this course.

CDG 417 Introduction to Economics. (Cross-listed with ECO 417) A basic survey for educators who have not studies college level economics. This course explains ways to introduce major economic concepts into the curriculum at all grade levels.

CDG 418 Learning Through the Arts. This course focuses on the arts as an integral part of the elementary school curriculum. Students will (1) gain insights into various art forms and ways these can be integrated into the curriculum to develop visual, auditory, and kinesthetic perception; (2) acquire skills in helping children use different media to explore thoughts, impressions, and feelings about their own experiences; and (3) plan activities that will promote learning within a multi-intelligence framework. Daytime clinical hours are required during this course.

CDG 419 Practicum: Curriculum and Methods in Social Studies. Materials, methods, and classroom management techniques appropriate for teaching social studies in the elementary grades. Disciplines included are history, geography, anthropology, political science, economics and sociology. Topics will include cooperative group learning, questioning skills, role playing, citizenship education, value development, program planning, and evaluation.

CDG 420 Microcomputers in Education. An introduction to microcomputers for educators and administrators who have no previous computer experience. The course includes an overview of the present state of hardware and of educational software; an introduction to basic concepts in computing and computer usage; a framework for classifying educational uses of the computer; an analysis of selected research on educational computing; and discussion of the likely social organizational consequences of the increased use of computers in schools. Hands-on experience with a variety of hardware and software will be provided.

CDG 421 Computer Programming with Logo. An introduction to computer programming using Logo, a powerful, yet easy-to-learn language that both adults and children can use to express their ideas. This course covers the programming concepts needed for turtle graphics, including procedure definition, use of variables, file management, structured programming, and tail-recursion. Extensive hand-on experience will be provided, and classroom applications (especially for students in grades 3 through 8) will be discussed. No previous computer experience is required.
CDG 422 **Intermediate Logo Programming.** A continuation of CDG 421 which extends the principles learned to the manipulation of words and other symbols. The course includes arithmetic and logical operations, list processing, tree and hierarchical structures, and recursion. Extensive hand-on experience will be provided and classroom applications (especially for students in grades 5 through 10) will be discussed. A knowledge of turtle graphics in Logo will be assumed.

CDG 423 **Microcomputer Based Science Labs.** This course demonstrates how a microcomputer can be used to measure force, light, pressure, temperature, velocity, acceleration, heart rate, response time, muscle activity, and many other qualities observable in the world around us. After experiencing how such an instrument can transmit a feel for phenomena, participants will use a variety of software to record, graph, and analyze the data they have collected. This will be followed by discussion of ways to use the hardware and software to revitalize science teaching. For elementary as well as secondary science teachers.

CDG 424 **Computers and Writing.** An analysis of how the use of word processors affects composing, editing, and revising skills. The course focuses on writing as a process, theory and research about writing and motivation, and current computer capabilities. Participants will use and evaluate a variety of word processing software.

CDG 425 **Workshop for In-Service Teachers.** Topics of particular interest and concern to educators will be presented in a high involvement seminar format.

CDG 426 **The Teaching of Writing.** Focus on important aspects of a writing program from the primary grades to college: the composing process; motivation and writing; the teaching of grammar and syntax; and the relationship of speaking and writing. Also teaching the various types of writing—personal, narrative, expository writing, poetry, and correspondence—examined and practiced by the class.

CDG 427 **Curriculum in Language Communications.** This course develops an approach to the K-8 curriculum in language in which communication is treated as an integrated phenomenon rather than as discrete, fragmented activities. Speaking, listening, writing, and reading are related to each other and to the central core of language. Thus, it focuses on activities which support and develop oral, expressive, and receptive aspects of language as well as on activities which develop skill in writing. Daytime clinical hours are required during this course.

CDG 428 **Literature and the Reader.** Analysis of the interaction which occurs between the reader and the literary work and an examination of the implications for classroom teaching and curriculum development. Kindergarten through college. The emphasis is on the reader in the reading of the work.

CDG 429 **Teaching Economics in U.S. History.** (Cross-listed with ECO 429) the use of economic concepts to interpret and analyze American history. The course traces the development of the United States economy and provides models for introducing economics development into junior and senior high school courses.

CDG 430 **Teaching Consumer Education.** (Cross-listed with ECO 430) An approach to consumer education that provides a basis for interpreting consumer choices as part of a larger system: the urban economy and the American economy. The course uses Chicago area sites as well as current consumer education resources to deal with consumer economic issues. Meets the certification requirements for teachers of consumer economics in Illinois.

CDG 431 **Teaching the American Economic System.** (Cross-listed with ECO 431) The course explains basic economic concepts and provides tools of analysis that teachers can use to give students a clear understanding of the American economy and contemporary economic problems.
CDG 432 Introduction to Labor and Industry. (Cross-listed with ECO 432) An examination of the basic economic concepts and tools of analysis necessary to comprehend and communicate the worker's role in the contemporary economy. The course uses Chicago area situations to focus on the factors of production and trends in technology, capital, and human capital development.

CDG 433 Development of Economic Education Programs. (Cross-listed with ECO 433) The course emphasizes essential economic concepts and introduces ways to plan and develop programs and materials to communicate those concepts in a range of educational settings including schools, community groups, and formal and informal adult education projects.

CDG 434 Implementing Economic Education. (Cross-listed with ECO 434) This course deals with the practical issues that affect the successful introduction of economic education in an ongoing program. Participants will consider specific materials and methods for teaching economics and will identify the approaches that are most appropriate for different educational situations.

CDG 435 Teaching Money and Banking. (Cross-listed with ECO 435) This course explains the financial system in the United States and considers essential concepts of inflation, credit creation, monetary policy, and investment. By using Chicago area financial institutions to focus on economic concepts, the course prepares educators to teach money and banking to junior high school students, high school students, and adults.

CDG 436 Integrating International Trade in the Curriculum. (Cross-listed with ECO 436) This course will combine curriculum principles with the presentation of models for incorporating international trade in courses in economics, geography, political science, and urban studies.

CDG 437 Teaching Economic Geography. This course will present major concepts of economics and geography as teachers learn how to use maps to profile places, analyze change, and plan development. The course will focus on urban geography as well as regional geography.

CDG 438 Teaching Economic History. This course will use principles of economics to analyze conditions and changes in history. Course materials and methods will be applicable to teaching local, state national, and world history.

CDG 439 Teaching the Economics of Government. Fiscal policy will be the main topic of this course which will examine the principles and practices of taxation and spending at local, state, and national levels of government. This course will include an examination of the basis for government's economic role, including the Constitution. While the course will deal primarily with the United States governments, it will include a study of governments based on other systems.

CDG 440 Social Economic Development. (Cross-listed with ECO 440) An examination of theories of economic development, including the role of the market, the enterprise system, and economic intermediaries. By considering the implications of major economic theories for Chicago's economic development, the course will prepare educators not only to teach about economic development but also to link those theories to the Chicago community.

CDG 441 Introduction to American Economic Development. (Cross-listed with ECO 441) The course will trace the economic development of the United States with an emphasis on the Midwest in the 19th Century. Focusing on the impact of innovation and the role of the city, the course will provide a framework for teaching Chicago's economic development.
CDG 442 Introduction to Business and Public Policy. (Cross-listed with ECO 442) A history of government and business relations that emphasizes major issues that have affected the American economy, including property rights, labor, and welfare. The course will compare different kinds of economies: the market system with laissez faire, the market system with antitrust, administrative regulation, and socialism.

CDG 443 Teaching Economics: Applied Basic Concepts. (Cross-listed with ECO 443) This course will involve students in economic education through actual instruction. As concepts are presented in the course, the participants will teach those concepts themselves to their students, using materials and methods organized for this course.

CDG 444 Chicago's Current and Future Economy. (Cross-listed with ECO 444) Beginning with a survey of Chicago's development in the 19th Century, the course examines contemporary Chicago and considers patterns and predictions of future development. By emphasizing the concepts of economic development and the trends in technology and human capital, the course provides a basis for interpreting Chicago's current economy and planning for its future.

CDG 445 Integrating Economics in the High School Curriculum. (Cross-listed with ECO 445) This course presents a system for planning and integration of economic education in Chicago area high school curricula. The course will provide models for introducing economic development concepts into the curriculum in social studies, English, math, and other subject areas. Participants also will consider the organizational requirements for curricular innovation.

CDG 454 Contemporary Methods in the Teaching of Geography. This course will cover basic content materials plus numerous teaching methodologies that will enable a teacher to teach effectively the five themes of geography: location, place, relationships with places, movements and regions, according to state of Illinois guidelines.

CDG 456 The Global Economy and the Chicago Economy. (Cross-listed with ECO 456) An introduction to international economics with a focus on the role of Chicago in the world economy. The course will deal with economics and financial aspects of international business and the impact of conditions and shifts in the international economy on Chicago's economy.

CDG 468 Catechetical Leadership. A seminar and practicum in religious education for parish and school directors of religious education.

CDG 480 Practicum in Material Development. A series of workshop experiences designed to explore the technology of curriculum in social studies, language arts, science and mathematics.

CDG 481 The Study of Teachers and Teaching. A selective survey and analysis of research on teachers and teaching. Particular emphasis will be placed on the assumptions which are built into various forms of research and the effect these assumptions have on how results should be interpreted and used in supervision and curriculum development. Each student will be expected to become familiar with alternative ways of studying teachers and the teaching process in his/her area of expertise. While many school settings will be utilized because of the many studies done in this area, research in non-school settings will be given a good deal of emphasis.

CDG 482 The History of Curriculum Practice. A survey of trends and movements in curriculum practice. Particular emphasis will be placed on the recurrent nature of curriculum practices and the reasons for this. The underlying models of curriculum practice in their historical settings will be considered as possible methods for modern day needs and the assets and liabilities of those models will be used in viewing modern day practices.
CDG 483 Practicum in Developing Curriculum Materials. Textbook, audio-visual, and microprocessor curriculum materials will be studied in order to ascertain the intended and actual relationships between curriculum design and the materials. More than one set of materials may be developed per curricular design, and differences among materials will be carefully examined. Students will develop actual curriculum materials reflecting at least two distinct ways of implementing a given design. (2 quarter hours)

CDG 484 Multi-Media Materials Production. The role of multi-media materials in meeting local instructional needs. Setting objectives, selecting content, filmstrips, slides, transparencies, and cassettes to meet educational needs.

CDG 485 Curriculum/Program Evaluation. Theories of evaluation. The role of evaluation in Curriculum/Program Development. Materials and methods for curriculum/program evaluation in schools and organizations. The planning for an evaluation of an ongoing program will be the major project of this course. (Prerequisite: Being a practicing teacher)

CDG 486 Practicum: Conducting Curriculum/Program Evaluation. Involves carrying out an evaluation of the effectiveness of an ongoing program. Field work will be expected of students. The planning for this evaluation will be undertaken in CDG 485. (2 quarter hours) (Prerequisite: CDG 485)

CDG 487 Introduction to Curriculum Deliberation. An introduction to systematic and collaborative deliberation on curriculum problems. A pattern for deliberation (including situation analysis, problem discrimination and formulation, development of alternative courses of action, and anticipation of consequences) will be developed and exemplified. This pattern will be contrasted with other descriptions of curriculum planning. Each student will complete a project which describes his/her systematic formulation of a curriculum problem and a plan of action for resolving it. (Prerequisite: Being a practicing teacher)

CDG 488 Designing and Interpreting Curriculum. An examination of the underlying structures of diverse curricula and of the processes by which they are developed and implemented. Principles and methods for organizing subject matter will be analyzed. The translation of subject matter into curriculum will be examined with particular attention to the assumptions about subject matter built into texts and other curricular materials. Students will analyze curriculum guides and materials to uncover their underlying structures and their explicit and implicit assumptions about subject matter. (Prerequisite: Being a practicing teacher)

CDG 489 Instructional Strategies to Develop Critical and Creative Thinking. In this course students will analyze a wide variety of instructional strategies and curriculum models and apply them to their own school settings. Teacher-centered, student-centered, and computer strategies will be introduced which can be applied to a wide range of ability, grade levels, and subject areas. The emphasis will be on models which call upon students to use and thereby develop critical and creative thinking skills, inquiry, independent research skills, problem solving abilities, and communication skills.

CDG 524 Methods and Materials of Teaching English as a Second Language. Within the context of multicultural education, this course will present some of the major English as a Second Language methodologies and curriculum designs. It will concentrate on methodologies and materials targeted for elementary aged, second language speakers, and touch upon some adult ESL issues. It will provide students with the opportunity to apply second language methodologies in on-site field work with second language learners which is an integral part of the course.
CDG 525 Reading, Writing, and Communicating Across the Curriculum. This course analyzes the interrelationships among reading, writing, speaking, and listening. It encourages junior high and high school teachers in all disciplines to take these interrelationships into account and to plan courses with current teaching techniques, which will enable students to become better readers, writers, and thinkers in their various content area classes. This course will also concentrate on group process and its role in effective teaching within and across content area classes. Language use, learning, and teaching are considered from a multicultural perspective.

CDG 526 Foundations of English as a Second Language. This course will familiarize teachers with basic teaching theories and multicultural awareness in the area of teaching English as a Second Language. The teaching of listening, speaking, reading, and writing for second language learners will be discussed and explored in light of current theories and designs. Integrated throughout the entire course will be the central importance of ethnographic information on second language students and the view of teacher as researcher and reflective professional.

CDG 580 Research Seminar in Curriculum Program Development. Students in the Master of Education program in curriculum development complete a bibliographical research study of issues and problems in curriculum developments. Students who currently hold positions in curriculum may complete an action research project for this seminar.

CDG 581 Computers in Instruction. An examination of how computers are being used in educational settings and of the impact they may have on learners. The course includes consideration of the roles which teachers and computers play, the social organization of classrooms in which computers are being used, research on the impact computers have within educational settings, demonstrations and discussion of uses which have so far not been widely implemented. Participants will be expected to observe educational settings in which computers are being used and report the analysis of their observations to the class. (Prerequisite: CDG 420 or equivalent preparation)

CDG 582 Practicum in Curriculum Development. The student is provided directed experiences in decision-making for curriculum, participation and leadership in curriculum committee activities, planning, and management of learning resource centers and other aspects of curriculum development in schools and school systems. (Prerequisite: Permission of program advisor)

CDG 583 Using Microcomputers in Curriculum Development. Fundamentals of educational software design, and evaluation for teachers and curriculum workers. After a brief introduction to the complexities of writing educational programs in conventional programming language such as BASIC, participants will learn how to use Pilot and other authoring systems. Then they will be asked to test and evaluate a wide variety of programs written by others, including commercially prepared software related to their career goals. The course also includes discussion of how particular software does or does not fit the overall design of a curriculum. (Prerequisite: CDG 420 or equivalent preparation)

CDG 584 Practicum: Developing Computer Based Curriculum Materials. In this workshop students have the option, under direction of the professor, to plan a set of experiences that will add to their competencies and qualify them to perform leadership functions. Areas of study available in the workshop include: introduction to program writing in BASIC language; analysis of statistical computer programs; use of common parametric and non-parametric intermediate statistics in the analysis of data; teacher-made programs for teaching; and programs designed to facilitate curriculum program evaluations. (Prerequisite: CDG 583 or equivalent preparation)
CDG 585 **Elementary Student Teaching and Seminar.** Students will be placed for a minimum of 12 weeks in an elementary school. Seminar will meet once a week, in the participating schools and/or at DePaul. At first, they will focus on issues of immediate concern to student teachers. As the students gain experience the seminar will examine six or eight classroom "issues"; that is, topics which students have found to be significant on the basis of their experience. These would include such things as assessment, evaluation, classroom management, curriculum planning, and relationships with colleagues. After delineating what the issues are, students would be expected to analyze and discuss readings which relate to the issues.

CDG 588 **Independent Study in Curriculum Development.** (Prerequisite: Permission of the instructor)

CDG 589 **Thesis Research in Curriculum Development.** A student writing a thesis registers for this course for four quarter hours of credit. Where the thesis research and the writing of the thesis itself are prolonged beyond the usual time, the program advisor may require the student to register for additional credit. (Prerequisites: CUG 400 and thesis proposal approved)

CDG 590 **Secondary Student Teaching and Seminar.** Students will be placed for a minimum of 12 weeks in a secondary school. Seminar will meet once a week, in the participating schools and/or at DePaul. At first, they will focus on issues of immediate concern to student teachers. As the students gain experience the seminar will examine six or eight classroom "issues"; that is, topics which students have found to be significant on the basis of their experience. These would include such things as assessment, evaluation, classroom management, curriculum planning, and relationships with colleagues. After delineating what the issues are, students would be expected to analyze and discuss readings which relate to the issues.

CDG 600 **Registered Student in Good Standing.** This registration is required of all students who are not enrolled in a course but are completing course requirements and/or research. It provides access to University facilities. Non-credit. $40.00 per quarter.

CDG 610 **Induction into the Teaching Profession: Elementary.** This course is designed to assist first year teachers in grades K-8 to make the transition from student of teaching to teacher. The course creates a bridge between first year teachers' formal education and the realities of their classrooms. In particular, the course provides assistance with the following: 1) understanding their induction into the profession; 2) analyzing their new educational contexts; 3) actualizing their educational philosophies; 4) developing their pedagogical knowledge; and, 5) identifying and making the most of professional support systems within their schools. (Prerequisite: Being a first year teacher)

CDG 611 **Induction into the Teaching Profession: Secondary.** This course is designed to assist first year teachers in grades 9-12 to make the transition from student of teaching to teacher. The course creates a bridge between first year teachers' formal education and the realities of their classrooms. In particular, the course provides assistance with the following: 1) understanding their induction into the profession; 2) analyzing their new educational contexts; 3) actualizing their educational philosophies; 4) developing their pedagogical knowledge; and, 5) identifying and making the most of professional support systems within their schools. (Prerequisite: Being a first year teacher)
CDG 612 Teaching as Research. This course is designed to help practicing teachers learn more about their own teaching. They will be asked to raise, formulate, and pursue questions about their own teaching and its relationship to student learning. In following this line of investigation, teachers study whole classrooms as well as select individuals. Teachers will enhance such skills as observing, listening, reflecting, and analyzing through employing techniques like clinical interviews, videotapes, and lesson analyses. The course culminates with a paper that addresses what the teacher has learned about his/her own teaching and the nature and development of human learning. (Prerequisite: Being a first year teacher.)

CDG 613 Negotiating Curriculum in the Classroom. This course assumes that teachers are curriculum developers, not simply implementors of curriculum provided by tests and curriculum guides. It asks teachers to examine how written curricula are enacted in the classroom highlighting the students' role in the process. They will be expected to follow a line of investigation based on gathering data from students prior, during, and after implementation. This course culminates with a more refined piece of curriculum, as well as a paper that addresses the teacher's growth in understanding curriculum processes. (Prerequisite: Being a first year teacher)

CDG 630 Methods of Secondary Science Education. This course is designed to update teachers in the methods of science teaching. This involves reviewing the processes of science, theories of learning, and instructional strategies appropriate to laboratory science. This course also provides an update on the current trends and issues in science education as well as an analysis of successful science curricula programs.

EDUCATIONAL LEADERSHIP (A&S and PE)

Administration and Supervision (A&S)

A&S 465 Administrative Planning. This course concerns program budgeting and systems analysis. Students will be introduced to operations analysis, PERT, input-output analysis, and cost-effectiveness.

A&S 469 Educational Finance. This course examines the bases for collecting and distributing local, state, and federal funds for education; problems and issues in financial support of education. Special emphasis on assessment and evaluation techniques for the review of individually budgeted programs and familiarization with current worksheets and formulas for computing state aid.

A&S 491 Administrative Theory and Behavior. This course concerns theoretical concepts and empirical research relating to administrative behavior in organizations with special reference to educational organizations. Concepts are examined within the typical decisional framework of supervisors, chief school business officers, principals, and superintendents, and similar positions in the helping professions. Assignments are individualized.

A&S 492 The Principalship. An intensive study of factors involved in the administration and supervision of a school. Topics considered include the administration and supervision of student personnel, faculty, the instructional program, financial and physical resources, community relations and other basic needs in administering and supervising schools.

A&S 494 School Finance. Major consideration will be given to problems relating to the preparing of a school budget, procuring revenue, financial accounting, capital outlays, insurance on property, taking of inventory, and the social and political implications of how schools are financed.
A&S 495 School Law. Authority, powers, and liability of school personnel; rights and status of students; character of districts and school board control of curriculum, school property, finances. Special emphasis on recent state and federal court decisions as they affect Illinois and neighboring states.

A&S 496 Home, School, Community Relations. Importance of recognizing the needs and problems of schools and other organizations, and designing programs to meet the needs of particular populations. Students will review findings form research and ideas of practitioners in the field as sources for the enrichment and development of sound and defensible programs.

A&S 498 Principles and Practices of Supervision. Supervision viewed from a human resources perspective, dealing with motivation, responsibility, and successes at work as a means to intrinsic satisfaction.

A&S 499 Clinical Supervision. Develops competencies in a system of person-to-person supervision that will give supervisors reasonable hope of accomplishing significant improvements in the personnel performance.

A&S 586 Administrative Uses of Microcomputers. Applications will include word processing, record keeping, reporting, budgeting, forecasting, and instructional management. Hardware, software, personal, and cost questions will be addressed. There will be an opportunity for extensive hands on experience with representative hardware and software. (Prerequisite: CDG 420 or equivalent preparation)

A&S 590 Organizational Development. A development approach used in combining theory, research, and applications for improving interpersonal effectiveness and to develop problem solving capacity of the organization. The course is about change theory, people in organizations and the achievement of individual and organizational goals.

A&S 593 Practicum in Educational Leadership. The practicum provides opportunities for advanced students in administration and supervision to participate in and complete a research project in selected systems on a full-time or part-time basis. The experiences are intended to provide, under professional direction and supervision for (1) study of major factions, policies, and problems of administration and supervision, and (2) intensive study of certain critical administrative and supervisory practices. (Prerequisites: Advanced standing in administration and supervision and permission of faculty advisor)

A&S 594 Internship in Educational Leadership. The internship provides supervised experiences in selected organizations on a full-time or part-time basis. The student intern is cooperatively assigned to an organization under the immediate supervision of organizational personnel. The experiences provided are designed to enrich the students theoretical background with practical opportunities of participating in (1) overall contact with personnel and with the major functions and problems of certain critical administrative and/or supervisory activities, and (2) a detailed study and analysis of a particular administrative and/or supervisory function or activity. (Prerequisites: Advanced standing in administration and supervision and permission of faculty advisor)

A&S 595 Workshop in Educational Leadership. Topics of particular interest and concern to administrators and supervisors will be presented in a high involvement seminar format. Primary reliance will be on written materials; however, audiovisual and role-playing mechanisms may also be used. Participation in workshops is limited to advanced students of administration and supervision. (Prerequisite: Consent of instructor)
A&S 596 **Personnel Administration.** Theory, practice, and relevant research in modern personnel administration. Recruitment, staff-development, interviewing, collective bargaining, conflict resolution, and employee evaluation are emphasized. Human resource administration, induction programs, and in-service opportunities are touched upon.

A&S 597 **Politics of Education.** Policy development in education as a political process; community power, state, and national politics in educational decision making and the role of leadership and pressure groups in the shaping of educational policy at local, state, and national levels.

A&S 598 **Independent Study in Educational Leadership.** (Prerequisite: consent of instructor)

A&S 599 **Thesis Seminar in Educational Leadership.** A student writing a thesis registers for this course for four quarter hours of credit. When the thesis research and the writing of the thesis itself are prolonged beyond the usual time, the program advisor may require the student to register for additional credit. (Prerequisites: CUG 400 and thesis proposal approved)

A&S 600 **Registered in Good Standing.** This registration is required of all students who are not enrolled in a course but are completing course requirements and/or research. It provides access to University facilities. Non-credit. $40.00 per quarter.

**PHYSICAL EDUCATION (PE)**

PE 450 **Psychology of Sport Behavior and Athletic Performance.** A study of the philosophical and psychological concepts pertaining to sports, in general, and competitive athletic programs specifically. The course will be conducted in a seminar style analyzing the various coaching and administrative techniques in sports programs. Emphasis will be given to intercollegiate sports. Elementary, secondary, and professional sports programs will be included.

PE 451 **Current Issues and Trends in Athletics and Physical Education.** An analysis of the current issues, trends, and changes in competitive athletic programs and physical education programs. Major consideration will be given to problems relating to development of goals and objectives, preparation of program budgets, financial considerations, media input, and legal ramifications of the various programs.

PE 452 **Exercise Science and Sport.** A study of the advanced concepts and theory pertaining to analysis of human movement. Application will be made for the teaching of fundamental motor skills as well as the specialized analysis made by the coach. Discussion of the various techniques, sophisticated equipment, and empirical evidence will support the conclusions determined in the seminar. The course will be designed for professional physical educators and individuals involved in the coaching profession.

PE 453 **Advanced Health Concepts.** This course will present advanced concepts in health for the individual interested in Health Education or the Allied Health Professions. Emphasis will be placed on instructional methodology, curriculum planning, and educational evaluation in the health profession.

PE 454 **Care of the Athlete.** This course is designed to expand the student's knowledge of athletic injuries, incorporating hands-on experience. Topics will include current issues in anatomy and physiology; athletic first aid and emergency situations; standard procedure for diagnosis and treatment; conditioning, prehabilitation and rehabilitation; heat stress injuries; nutrition and eating disorders; taping, wrapping, and bracing; and other related topics in sports medicine.
**EDU**

**PE 455 Workshop in Physical Education.** Topics of particular interest to physical education teachers, coaches, and others involved in sports or physical education will be presented in a high involvement seminar format.

**PE 456 Medical and Legal Aspects of Coaching.** Training and conditioning practice and procedures to prevent athletic injuries. Emergency treatment and care of injured athletes including first aid and CPR protocols will be practiced. Nutrition/ergogenic aids, and their effects on athletic performance, as well as legal issues associated with coaching will be discussed.

**PE 457 Advanced Coaching Theories and Techniques.** Applied administrative theory to coaching. Emphasis on personnel and supervision, facility and equipment management, budgeting, programming, record keeping, scheduling, transportation, use of support personnel, scouting, and AV aids.

**HUMAN SERVICES AND COUNSELING (HSC)**

**HSC 452 Seminar in Human Services Organization.** Upon completion of this course each student will be able to: 1) analyze human service organizations in terms of their mission, vision, beliefs, current goals and strategies, organizational culture, organizational structures, and leadership; 2) utilize visionary, strategic, and operational planning processes to develop and organize a human services organization; 3) design various assessments of service outcomes of human services organizations; and 4) judge his or her effectiveness as a member of both a learning community and planning team.

**HSC 453 Human Services Information Systems.** Upon completion of this course each student will be able to: 1) develop an expanded/transferred vision of himself or herself as both a person and as a human services professional from that which she or he had at the beginning of the course; 2) relate his or her personal and professional development to popular theories of life and career development; 3) evaluate his or her performance in a life and career counseling experience both as a client and as a counselor; and 4) establish both a professional network of colleagues and a professional library of human services information which will be of use in future human service work.

**HSC 454 Human Services and Counseling for Career Development.** Ways to assist the individual to choose, prepare for, and progress in a career. Vocational testing, sources of occupational information are described. Study of vocational behavior in relation to career patterns with special attention to the analysis of empirical data and theories pertaining to vocational choice.

**HSC 455 The Administration of Human Services and Counseling Programs.** The administration of human services programs, an interdisciplinary approach to meeting needs, describes how administrators and counselors can develop skills and competencies to employ, assign, and supervise their staff. An analysis of various supervisory techniques is made.

**HSC 456 Counseling the College-Bound Student.** Designed to assist professionals in the human services and counseling areas in formulating a deeper perspective of the college counseling process. The use of profile types of colleges and admission procedures, testing, scholarships, advance placement, the preparing of the school report and many other items will be included in the instruction. The workshop approach will be used in the final two weeks of the course to put into practice concepts, skills, and techniques learned earlier.
HSC 457 Seminar: Improving Parent-Child Relationships. Structured to assist the student to develop a theoretical understanding of the development growth enhancing child-parent relationships. Lectures, discussions, and action oriented group encounters focus on the following: understanding child development, the goals of misbehavior, logical and natural consequences, establishing a family council, and utilizing effective encouragement methods within the family structure.

HSC 458 Facilitating Human Services Through the Group Process. Study and ethics of group process, group theories, problems such as conflict resolution, leadership and membership styles re-examined. The class engages in a regular group experience. Opportunity to observe and participate in group work is provided. Criteria and formulation for conducting workshops with group process is considered.

HSC 459 Clinical Studies in Human Services and Counseling. The purpose of this course is to provide students with opportunities to study the format of case studies and conduct individual assessment under supervision. Through the use of videotapes, role playing, and other interventions, in direct clinical experience, students will be given supervised feedback as to their performance of counseling skills and ability to assess case studies.

HSC 460 Guidance in the Elementary School. A study of the philosophy, concepts, and rationale which undergird elementary school guidance. Principles and practices as they relate to the guidance program are presented. The student is acquainted with the role of the counselor and is introduced to the various facets of the elementary school program. Attention is given to the development of guidance techniques in the class room and group guidance.

HSC 461 Use of Tests in Appraisal and Development. Detailed analysis of intelligence, aptitude, personality, and achievement tests used with groups and individuals. The course is intended to familiarize students with various appraisal procedures and their utilization. Attention is given to the development of the institutional testing program.

HSC 462 Counseling Theory and Practice for Human Services. The purpose of this course is to provide students with opportunities to study the format of case studies and conduct individual assessment under supervision. Through the use of videotapes, role playing, and other interventions, in direct clinical experience, students will be given supervised feedback as to their performance of counseling skills and ability to assess case studies. The student's use of Carkuff counseling skills are videotaped in three counseling sessions. The assessment use of DSM III-R is reviewed.

HSC 463 Techniques of Human Services and Counseling in Elementary and Junior High School. A thorough study of the counseling relationship and counseling process. Students are introduced to specific techniques in counseling. This course is designed to help the student acquire the necessary counseling skills such as the establishment of a relationship, reflection, summarization, tentative analysis, and encouragement. The student evaluates and analyzes tapes, develops listening skills to facilitate communication, engages in role playing, and has limited contact with the counselee. The relationship of counseling and consultation and the skills necessary to employ human services are considered (Prerequisites: HSC 460 and 462)

HSC 464 Consulting in Human Services. Focus on a human behavior rationale consultation work with personnel in various institutions and human service agencies. Use of case studies, role playing, and observation of the consultant role. Stress on the facilitation of communication and dynamics in interpersonal relationships.
HSC 465 Principles and Practices of Higher Education Personnel. This course will include an overview of principles and practices of higher education personnel work with an emphasis on management theories and strategies. Selected topics, issues, and services will be presented by professionals in higher education. This course will also be concerned about international and multicultural student issues.

HSC 466 Assessment and Treatment of Chemical Dependency. This course seeks to develop skills and understandings relevant to the assessment and treatment of chemical dependency. The major alternative assessment approaches and treatment interventions for chemical dependency are surveyed and analyzed.

HSC 468 Issues in Human Services and Counseling. Topics such as chemical dependency, human sexuality, loss process in grief and divorce with single parents, blended families, ethnicity, holistic life style counseling, inner city, special needs of children, as well as other current topics will be presented in a high involvement seminar format, including outside community speakers and tours.

HSC 500 Communication Strategies for Effective Human Interaction. This course examines oral communication skills as a dynamic in human relations, particularly in classroom relationships. Through reading, discussion, and a variety of activities and experiences, students will explore ways to improve their own communication skills. Skills emphasized include: perception, verbal and non-verbal language, accurate and empathetic listening, speaking and presentation, and group dynamics.

HSC 552 Practicum in Human Services and Counseling: Schools. Selected and directed experiences provided to qualify students to service in the elementary/secondary schools as student personnel and guidance staff members. (Prerequisite: Open to students in degree programs only by faculty advisement.)

HSC 553 Internship/Thesis Research in Human Services and Counseling I: Guidance Concentration. After consultation, the student-intern is assigned to one or more cooperating schools. the person functions under the joint supervision of the school's guidance/counseling service supervisor and a university director. The student-intern gains practical experience in various aspects of school counseling, guidance functions, procedures, and services. During the internship the student-intern will complete a thesis/research project as part of the requirement for the Master of Arts degree. The thesis/research project is approved jointly by the internship supervisor and University based director. Ongoing reflective seminars will be part of the internship experience. They will include the following topics: chemical dependency, sexuality, single parent families, blended families, ethnicity, and ethnocentricity. The student-intern receives 3 quarter hours of credit each quarter for this two-quarter, three hundred hour experience.

HSC 554 Internship/Thesis Research in Human Services and Counseling II: Guidance Concentration. This is a continuation of Internship I. The student-intern receives 3 quarter hours of credit each quarter for this two-quarter, three hundred hour experience.

HSC 553 Internship in Human Services and Counseling I: Guidance Concentration. After consultation, the student-intern is assigned to one or more cooperating schools. the person functions under the joint supervision of the school's guidance/counseling service supervisor and a university director. The student-intern gains practical experience in various aspects of school counseling, guidance functions, procedures, and services. Ongoing reflective seminars will be part of the internship experience. They will include the following topics: chemical dependency, sexuality, single parent families, blended families, ethnicity, and ethnocentricity. The student-intern receives 3 quarter hours of credit each quarter for this two-quarter, three hundred hour experience.
HSC 554 **Internship in Human Services and Counseling II: Guidance Concentration.** This is a continuation of internship I. The student-intern receives 3 quarter hours of credit each quarter for this two-quarter, three hundred hour experience.

HSC 555 **Counseling Adults Through the Aging Process.** This course focuses on the dynamics of adult growth and development from spiritual and psychological perspectives. It will provide basic helping and referral skills for those persons working with adults. Emphasis is placed on attitudes toward aging as well as the identification of developmental needs of aging persons. Attention is paid to gerontological counseling skills.

HSC 556 **Marriage and Family Counseling.** This course focuses on providing theoretical formulations and practical illustrations applicable to the practice of marriage and family counseling. Students engage in role playing, case study, and observation of counseling techniques. Skills expected in this course include understanding the process of marriage and family counseling and understanding the role of the counselor in the marriage and family setting. Students will learn to develop effective marriage and family strategies, and to conduct complete case analysis.

HSC 558 **Independent Study in Human Services and Counseling.** (Written permission of instructor is required.)

HSC 559 **Thesis Research in Human Services and Counseling.** A student writing a thesis registers for this course for 4 quarter hours of credit. Where the thesis research and the writing of the thesis itself are prolonged beyond the usual time, the program advisor may require the student to register for additional credit. (Prerequisites: CUG 400 and thesis proposal approved)

HSC 562 **Practicum in Human Services and Counseling: Elementary.** Selected and directed experiences provided to qualify students to serve in the elementary schools as student personnel and guidance staff members. (Prerequisite: Open to students in degree programs only by faculty advisement.)

HSC 569 **Thesis Research in Managing the Human Services.** A student writing a thesis registers for this course for 4 quarter hours of credit. Where the thesis research and the writing of the thesis itself are prolonged beyond the usual time, the program advisor may require the student to register for additional credit. (Prerequisites: CUG 400 and thesis proposal approved)

HSC 572 **Practicum in Human Services and Counseling: Agencies, Higher Education, and Family Concerns.** Selected and directed experiences provided in various aspects of counseling materials, functions, procedures, and services. (Prerequisite: Open to students in degree programs only by faculty advisement.)

HSC 582 **Practicum in Managing the Human Services.** Selected and directed experiences provided to qualify students to serve in the management of human services programs. (Prerequisite: Open to students in degree programs only by faculty advisement.)

HSC 600 **Registered Student in Good Standing.** This registration is required of all students who are not enrolled in a course but are completing course requirements and/or research. It provides access to University facilities. Non-credit. $40.00 per quarter.
HUMAN DEVELOPMENT AND LEARNING (IP)

The following courses are usually taught at The Institute for Psychoanalysis, 180 N. Michigan Ave., Chicago, IL 60201:

**IP 510 Life Course Personality Development I: Infancy through Middle Childhood.** This class examines the course of personality development from infancy through middle childhood, drawing upon contemporary psychoanalytic formulations and findings of developmental research as lenses through which to view behavior, understand developmental processes, and as perspectives applicable to the process of education. A portion of the class is reserved for seminar participants to examine human development based on case studies of personal observations and experiences.

**IP 520 Life Course Personality Development II: Adolescence Through Older Adulthood.** Seminar participants continue their longitudinal examination of human development through continued applications of theory, research and practice. Personal observations are made in schools and in other settings.

**IP 530 Psychological and Neurological Disorders of the Learning Process.** The major forms of learning disorders encountered among children are addressed, including difficulties resulting from social, emotional, neurological or cognitive factors. Diagnosis as the foundation for psychoeducational planning is emphasized and specific interventions are covered.

**IP 540 The Diagnostic Process and the Learning Experience.** This course focuses on the assessment process, the understanding of the child's emotional, social and behavioral functioning, and its relationship to learning. Psychodynamic theory and technique will provide a conceptual foundation for this process. Implications for the child, family, teacher, and school will be considered.

**IP 550 The Family and Life Course Development.** This seminar provides an introduction to the study of the family as a social system and the processes through which families influence behavior. Students focus on developing skills in understanding patterns of interaction and in identifying ethnic, cultural, and other unique sources of variation.

**IP 560 Dynamics of Small and Large Groups.** Psychoanalytic perspectives on the dynamics of behavior in groups are examined. Attention is given to the development of skills associated with understanding group processes, the influence of individuals on group processes, and the influence of group membership on individual behavior.

**IP 501 Field Placement—Internship I.** Each student's own place of work constitutes the initial phase of the internship experience. During the summer breaks, students are placed in different settings to gain experience with other student populations and educational environments. The student receives two quarter hours for this Internship.

**IP 502 Field Placement—Internship II.** Each student's own place of work constitutes the initial phase of the internship experience. During the summer breaks, students are placed in different settings to gain experience with other student populations and educational environments. The student receives two quarter hours for this Internship.
IP 500 Integrative Seminar. This seminar provides students with the opportunity to explore the subjective experiences of teaching and learning. Modeled after Donald Schon's "reflective practice" approach, participants experience, through personal reflection, how deeply involved they are in the learning situation they seek to understand and influence. It is through reflecting on the nature of the experiences in the program that the participants begin to explore how school experience is formed and shaped. As a result, the seminar's primary learning material is the participants' experience. This non-credit seminar meets every two weeks throughout the program.

CDG 589 Thesis Research in Human Development and Learning. A student writing a thesis registers for this course for four quarter hours of credit. Where the thesis research and the writing of the thesis itself are prolonged beyond the usual time, the program advisor may require the student to register for additional credit. (Prerequisites: CUG 400 and thesis proposal approved.)

READING AND LEARNING DISABILITIES (R&L)

R&L 404 Child Rearing Across Cultures. Examines child rearing practices and their effect on cognitive development. Different cultures will be studies to identify child/parent interactions and their impact on language and personality development. Conceptual issues and theoretical orientations in cross-cultural psychology will be addressed.

R&L 406 Psychology and Education in the Bilingual Child. Psycho-social aspects of bilingualism as well as the implications for teaching strategies for the bilingual child.

R&L 407 Non-Discriminatory Tests. Administration and interpretation of diagnostic test using a pluralistic model to make testing procedures more responsive to cultural pluralism. Uses a case study approach.

R&L 424 The Psychology and Acquisition of Reading. Provides an understanding of reading processes, theory, and current reading methods and strategies for elementary school children. It will include research-based comprehension strategies for narrative and expository text as well as student, text, and program assessment for individualizing instruction.

R&L 425 Teaching Reading in First and Second Language. Analysis of reading problems of bilingual children. Educational implications of language dominance assessment as a prerequisite to the decision in which language to teach reading. Advantages and disadvantages of teaching in dominant and/or weak languages will be emphasized.

R&L 441 The Psychology of Reading. Introduces students to current information concerning theoretical models and methods of reading as well as the role of the neurophysiological, psychological, and educational factors that influence both normal and abnormal reading development.

R&L 442 Characteristics of the Exceptional Learner. A survey of the characteristics of exceptional children and a consideration of alternative placements appropriate for children with various disabilities including the learning disabled. Emphasis on historical, theoretical, practical and legal implications and issues, as well as on the roles of special education professionals, including consultation and collaboration, in mainstreaming exceptional children.

R&L 443 Psychological Tests and Methods in Diagnosis. Principles of measurement and test construction including an evaluation of standardized test instruments. Principles of broad-based assessment involving case history, criterion referenced tests and informal assessment. Emphasis on understanding the strengths and limitations of a wide variety of assessment instruments. (Lab fee: $5.00)
R&L 444 Characteristics and Diagnosis of Reading and Learning Disabilities. Exploration of the theory and nature of reading and other learning disabilities. This course enhances a student's ability to interpret assessment data and develop a meaningful diagnostic hypothesis. A case study will develop the student's ability to integrate assessment information from a variety of sources, develop a learning profile, and write a diagnostic report. (Lab fee: $5.00 and Prerequisite: R&L 443)

R&L 445 Remediation of Reading and Learning Disabilities. A study of the theoretical and practical approaches to the remediation of reading and learning problems. Translation of diagnostic information into teaching strategies, and development of a remedial plan (IEP). Basic principles of diagnostic teaching will be introduced. Specific teaching techniques and materials will be reviewed, including appropriate uses of technology, as well as adaptations for LD students in the mainstream. (Lab fee: $5.00 and Prerequisite: R&L 444).

R&L 446 Psychology and Education of the Exceptional Child. Identification, characteristics, programs, schools, curricular variations, techniques for securing maximal development. Includes historical background, current legal and service provision issues including mainstreaming.

R&L 447 Language Development and Learning Disabilities. A review of the development of verbal language in normal and atypical learners, as presented by psycholinguistic and speech pathologists. Basic teaching procedures and evaluation of language skills will be emphasized.

R&L 448 Strategies or Teaching Learning Disabled Adolescents. A study of the theoretical and practical approaches to the remediation of reading and learning disabilities in adults and adolescents. Instructional techniques will be presented and remedial materials evaluated.

R&L 451 Characteristics of Children and Adolescents with Behavior Disorders. Explores the origins of behavior disorder from a family, biological, and school perspective. Screening, classification and assessment procedures are discussed. Differential diagnosis of behavior disorders form other psychiatric disorders is discussed along with the relationship of behavior disorders to learning disabilities. Appropriate educational placements are reviewed.

R&L 452 Methods of Teaching the Behavior Disordered Child and Adolescent. A variety of models of educational programming for students with behavior problems. Specific teaching and management techniques are presented consistent with the various models. Data collection, accountability, computer utilization, and research methods are included.

R&L 466 First and Second Language Acquisition. Study of language theories and their applications to first and second language acquisition in bilingual children.

NOTE: Registration of 540, 542, 543, and 544 require prior permission of the R&LD faculty. Failure to obtain permission will result in cancellation of registration. Because these courses involve commitments to clients in the Center for Reading and Learning, and because service to clients must be scheduled in advance, students must register at least 2 weeks before the end of the previous quarter. If unavoidable circumstances make it necessary to drop a practicum course, students must obtain written permission of the R&LD faculty.

R&L 540 Testing and Diagnosis of Reading and Learning Disabilities: Practicum IV. Additional exposure to diagnostic testing in a clinical setting. Students evaluate children and adolescents with learning problems. Under close supervision, students administer and interpret tests, deal with the ethics of testing and interpretation, and communicate results to parents, schools, and other agencies. (Prerequisites: R&L 445 and prior permission of instructor)
R&L 542  Testing and Diagnosis of Reading and Learning Disabilities: Practicum I.
   Students participate in a clinical setting and evaluate children and adolescents
   with suspected learning problems. Under close instructor supervision, students
   will administer and interpret tests, deal with the ethics of testing, interpret and
   communicate results to parents, schools, and other social agencies. (Prerequisites:
   R&L 445 and prior permission of instructor)

R&L 543  Diagnosis and Remediation of Learning Disabilities: Practicum II. Clinical
   observation and practical application of the diagnostic-remedial process by working
   in a supervised clinical setting with children and adolescents who have specific
   learning disabilities. (Prerequisites: R&L 445 and prior permission of instructor)

R&L 544  Diagnosis and Remediation of Learning Disabilities: Practicum III. Clinical
   observation and practical application of the diagnostic-remedial process by working
   in a supervised clinical setting with children and adolescents who have specific
   learning disabilities. (Prerequisites: R&L 445 and prior permission of instructor)

R&L 545  Methods and Techniques for Teaching Comprehension. Comprehension is
   treated as an interactive process between reader, the instruction, and the text.
   Using direct instruction and modeling, the teacher guides students in the inter-
   dependent use of prior knowledge, comprehension, metacognitive habits, and at-
   titudes when reading both narrative and expository texts.

R&L 546  Individual Assessment of Children Using the WISC-R. Focus on further de-
   velopment of diagnostic skills in the areas of reading and learning disabilities.
   Administration and interpretation of the WISC-R with emphasis on analyzing charac-
   teristic test profiles, and on application of this information to educational treat-
   ment plans. (Prerequisites: R&L 443 or 444, and permission of the instructor)

R&L 547  Creative Methods and Materials for Teaching Reading in the Mainstreamed
   Classroom. Emphasis on the creative utilization of a variety of multisensory tech-
   niques and materials designed for teaching and reading, and reading related skills
   to learning disabled in the regular classroom.

R&L 548  Independent Study in Reading and Other Learning Disabilities. Written per-
   mission of the instructor is required.

R&L 549  Thesis Research in Reading and Learning Disabilities. A Master of Arts can-
   didate conducts original research, writes a these, and presents an oral defense
   before a committee of faculty members. (Prerequisites: CUG 400 and approved
   thesis proposal)

R&L 600  Registered Student in Good Standing. This registration is required of all stu-
   dents who are not enrolled in a course but are completing course requirements
   and/or research. It provides access to University facilities. Non-credit. $40.00 per
   quarter.

R&L 643  Miscue Analysis. Theory and practice in miscue analysis is examined historically
   and currently. Focus in on increasing the range of instructional strategies avail-
   able to the teacher of reading.

R&L 645  Workshop in Reading and Learning Disabilities. Topics of current interest to
   the regular education teacher and the special educator in a high-involvement semi-
   nar format.

R&L 646  Teaching Reading to the Disadvantaged. Consideration of the linguistic, demo-
   graphic, cultural, and educational factors believed to influence the teaching of read-
   ing to the disadvantaged. Examination of teaching methods and materials
   appropriate for disadvantaged students.
R&L 647  **Children's Literature.** Sources of literature for children and youth. Criteria for selection and evaluation. Intensive review and analysis of poetry and prose with an emphasis on using literature in whole language instruction in the classroom.

R&L 648  **Corrective Reading Problems.** Techniques appropriate to the diagnosis of corrective reading problems in a classroom setting, along with methods and materials. Emphasis on informal assessment techniques and methods of instruction that allow for the creation of individualized learning environments in group settings.

R&L 649  **Teaching Reading in the Content Areas.** Focus on the special skills and problems involved in the teaching of reading in the content areas. Includes the place of content reading in the development of skilled reading and methods, and techniques of improving the teaching of reading in the content areas.
SCHOOL OF MUSIC
ADMINISTRATION

Frederick Miller,
Dean
Edward Kocher,
Associate Dean
Robert Krueger,
Director of Extension Services
John Wallace,
Administrative Assistant
Robert Shamo,
Coordinator of Admissions
Thomas A. Brown,
Coordinator of Graduate Studies

Committee on Graduate Studies:
Thomas A. Brown
Donald DeRoche
George Flynn
Edward Kocher

FACULTY

ADMISSION

CURRICULUM

COURSES
The location of DePaul University's School of Music in a metropolitan cultural center, a highly qualified faculty and the advantage of excellent facilities provide the basis for a strong graduate program in music.

GOALS

Goals of the graduate program in music at DePaul are:

- to refine perception of musical style and quality;
- to increase awareness and understanding of musical process;
- to move toward an increasingly active role in the acquisition of information about music;
- to explore the performance, compositional and pedagogical resources in the chosen area of specialization.

Frederick Miller, D.M.A., Dean
OBJECTIVES

Objectives of the graduate music program include the following:

- to develop a wider knowledge of repertory and the skills needed for its performance;
- to develop adequate skills for analysis of varied musical styles and genres;
- to make in-depth analysis of representative compositions in the specialization and elsewhere;
- to systematically review methods of research and information gathering.

Faculty

Victor Aitay ................................................................. Lecturer, Violin
Mus. B., Franz Liszt Royal Academy

Murray Allen .............................................................. Lecturer, Jazz Studies
Mus. M., DePaul University

Sheldon Atovsky ....................................................... Lecturer, Composition, Musicianship
D.M.A., Northwestern University

Peter Ballin ............................................................... Lecturer, Jazz Studies
Mus. B., University of Miami

Susanne Baker ............................................................ Lecturer, Class Piano
D.M.A., Northwestern University

Gilda Barston ............................................................ Lecturer, Music Education, Cello
Mus. M., The Juilliard School

Ross Beacroft ............................................................ Lecturer, Trumpet, Coordinator of Brass Program
Mus. B., Eastman School of Music

Greg Bimm ............................................................... Lecturer, Music Education
Mus. M., Western Illinois University

Jon Boen ................................................................. Lecturer, Horn
B.M., Northern Illinois University

Theresa Brancaccio .................................................. Lecturer, Voice
M.M., Northwestern University

Paul Bro ................................................................. Lecturer, Saxophone
Mus. M., Northwestern University

Thomas A. Brown ....................................................... Professor, Musicianship, Coordinator of Graduate Studies
Ph.D., University of Wisconsin

Judith Bundra ............................................................. Assistant Professor Chair, Music Education
Mus. M., Northwestern University

Jerome Butera .......................................................... Lecturer, Organ
D.M.A., American Conservatory of Music

Joseph Casey ........................................................... Associate Professor, Music Education
Ph.D., University of Iowa

William Cernota ........................................................ Lecturer, Cello
B.A., University of Chicago

Mark Colby .............................................................. Lecturer, Jazz Saxophone
M.M., University of Miami

Cliff Colnot ............................................................ Lecturer, Jazz Studies
Ph.D., Northwestern University

216
Larry Combs .................................................. Lecturer, Clarinet
B.M.E., Eastman School of Music

Floyd Cooley .................................................. Lecturer, Tubi

Donald DeRoche ........................................... Associate Professor, Chair, Performance Studies,
Ph.D., Northwestern University Director of Band Organizations

Julie DeRoche .............................................. Lecturer, Coordinator of Woodwind Program, Clarinet
Mus. B., Northwestern University

Lori Ellsworth ................................................ Lecturer, Jazz Studies
B.M., University of Miami

George Flynn .................................................. Professor, Composition, Chair Musicianship Studies
D.M.A., Columbia University

Greg Fudala ................................................. Assistant Director of Bands
M.M., De Paul University

Ellen Gold ..................................................... Lecturer, Music Education
Mus. B., University of Iowa

Amy Goodman .............................................. Assistant Professor, Director of Choral Organizations
D.M.A., Stanford University

Bruce Grainger ............................................... Lecturer, Bassoon

Larry Gray ................................................... Lecturer, Jazz Bass
Mus. B., Roosevelt University

Michael Green ................................................ Lecturer, Percussion, Coordinator of Percussion Program

Norman Gulbransen ........................................ Lecturer, Voice
Mus. M., Northwestern University

Viola Haas ....................................................... Associate Professor Emeritus
Mus. M., State Conservatory-Prague

Stephen Hartman ........................................... Lecturer, Harp
Mus. M., Indiana University

B. Lynn Hebert ............................................ Assistant Professor, Musicianship
D.M.A., Stanford University

Mary Hickey .................................................. Lecturer, Flute
Mus. B., Northwestern University

Linda Hirt .................................................... Lecturer, Piano
Mus. M., Indiana University

Hilel Kagan .................................................. Lecturer, Violin
University of Leningrad

Lewis Kirk .................................................. Lecturer, Music Education
Mus. B., Manhattan School of Music

Edward Kocher ............................................ Associate Dean, Associate Professor, Trombone and Euphonium,
Ph.D., University of Illinois

Robert Lark .................................................. Coordinator of Jazz Studies
M.M.E., University of North Texas

Kurt Link ..................................................... Lecturer, Voice
B.M., Lawrence University

Robert Orth .................................................. Lecturer, Voice
B.M., Wheaton College

Judith Lewis .................................................. Lecturer, Music Education
M.A., Northwestern University

Mark Maxwell ................................................ Lecturer, Guitar
Mus. M., Southern Methodist University

Frank Mantooth ............................................. Lecturer, Jazz Studies
B.M., University of North Texas

Charles Moore .............................................. Lecturer, Voice
M.M., American Conservatory of Music
Paul McKee .......................... Mus M., Lecturer, Jazz Trombone
Mus. M., University of North Texas
Manny Mendelsohn .......................... Lecturer, Jazz Studies
Mus. M., Eastman School of Music
Frederick Miller .......................... Dean of the School of Music, Professor, Musicianship
D.M.A., University of Iowa
Robert Morgan .......................... Lecturer, Oboe
Mus. B., Indiana University
Eloise Niwa .......................... Lecturer, Piano
Mus. B., American Conservatory
Larry Novak .......................... Lecturer, Jazz Piano
University of Minnesota
Bradley Opland .......................... Lecturer, String Bass
Dmitry Paperno .......................... Professor, Piano
Mus. M., Tchaikowsky State Conservatory
Albert Payson .......................... Lecturer, Percussion
Mus. M., University of Illinois
Donald Peck .......................... Lecturer, Flute
Curtis Institute
Herman Pedke .......................... Associate Professor Emeritus
Mus. M., DePaul University
Anne Perillo .......................... Lecturer, Voice
Mus. M., DePaul University
Jacobeth Postl .......................... Orff Institute, Lecturer, Orff-Schölwerk
Mus. M., Chicago Musical College
James Ross .......................... Lecturer, Percussion
Christine Ross .......................... Lecturer, Music Education
Mus. M. Ed., University of Illinois at Chicago
Akio Sasajima .......................... Lecturer, Jazz Guitar
Mary Sauer .......................... Lecturer, Piano, Coordinator of Piano Program
Mus. M., Chicago Musical College
Clara Siegel .......................... Lecturer, Chamber Music, Piano
Mus. B., Chicago Musical College
Harry Silverstein .......................... Lecturer, Opera
Rami Solomonow .......................... Assistant Professor, Viola
Mus. B., Northern Illinois University
Joel Spencer .......................... Lecturer, Jazz Percussion
B.S., University of Illinois
Leon Stein .......................... Professor Emeritus, Dean Emeritus
Ph.D., DePaul University
Mary Stolper .......................... Lecturer, Flute
Mus. M., Northwestern University
Alan Swain .......................... Lecturer, Musicianship
Mus. M., Northwestern University
Meng-Kong Tham .......................... Assistant Professor, Liberal Studies
M.M., Northwestern University
Gail Tremiere .......................... Assistant Professor, Coordinator of Vocal Program, Voice
D.M., University of Michigan
Wesley Vos ........................................ Associate Professor, Composition, Musicianship
Ph.D., Washington University

Robert Wessberg ........................................ Lecturer, Percussion
M.M.E., Northwestern University

Kurt Westerberg ........................................ Assistant Professor, Composition, Musicianship
D.M.A., Northwestern University

Lilian Yaross ........................................ Lecturer, Orff-Schulwerk
Mus. M., DePaul University

John Bruce Yeh ........................................ Lecturer, Clarinet
Mus. B., Juilliard School

Mark Zinger ........................................ Professor, Violin
Odessa State Conservatory

PROGRAMS OF STUDY

The School of Music offers programs leading to the Master of Music degree in the fields of applied music (performance), composition, music education and jazz studies. A minimum of 44 quarter hours of graduate credit is required for the master of music degree. This total is divided between the CORE STUDIES (required of all master of music students), and the SPECIALIZATION REQUIREMENTS which relate uniquely to the area of specialization. (Specialization requirements listed under Course Requirements, page 210.)

ADMISSION

The first charter of DePaul University included a statement on nondiscrimination and the policy has been enforced vigorously for over 80 years. Students, faculty and the public are entitled to equal treatment regardless of race, creed or color. It is the policy of the School of Music to make admission decisions without regard to the race, color, religion, age, sex, national origin or handicap of the candidate.

DEGREE SEEKING STUDENTS

Admission to the graduate degree programs is based on evidence of ability to be successful in graduate study. Other criteria include:

- completion of the bachelor of music degree, or equivalent, from an accredited institution;
- a cumulative grade point average of 3.0 (A = 4.0);
- three letters of recommendation;
- demonstration of special competence in the major area, including an audition for applied (performance) majors.

The applicant's undergraduate preparation should be related to the intended graduate major. If deficiencies exist in the bachelor of music equivalent (resulting, for example, from having completed a different degree or attempting to change the major emphasis), students may, with approval of the Graduate Studies Committee, be admitted to the Graduate Division as non-degree students for the purpose of removing deficiencies.

CERTIFICATE IN PERFORMANCE

The School of Music also offers a program leading to the Certificate in Performance. Detailed information about this program appears on p.211.
NON-DEGREE SEEKING STUDENTS

Students who do not intend to work for a Masters degree or who have missed the degree seeking deadline may file an application for non-degree seeking status under the following regulations:

1. Applicants who have not earned a Bachelors degree or its equivalent from an accredited institution cannot be admitted.
2. Applicants must demonstrate special competence in major area, including an audition for applied (performance) majors.
3. Applicants refused admission as degree-seeking students may not enroll as non-degree-seeking students.
4. Non-degree-seeking status may be terminated at any time by the Associate Dean.

Non-degree-seeking students who plan to register for or who accumulate a substantial amount of credit are advised to become degree-seeking students. Only the first 12 quarter hours earned as a non-degree-seeking student at DePaul may subsequently be applied toward a degree when the student is accepted as a degree-seeking student.

STUDENT-AT-LARGE

A student completing a graduate program at another accredited institution may, on the written recommendation of their graduate dean, be admitted as a student-at-large.

INTERNATIONAL STUDENTS

All foreign students and any student who has been educated outside of the 50 United States should request general admission information and applications from the International Advisor. Application deadlines for students with foreign education are: Autumn Quarter, June 1; Winter Quarter, October 1; Spring Quarter, January 1; Summer Quarter, April 1. To be admitted, all students must meet academic requirements and demonstrate a proficiency in English. Those who request student visas also must show evidence of adequate financial support (scholarships are not available to these students). A formal letter of admission and/or form I-20 will be issued only after all admission requirements have been fulfilled.

PROCEDURES FOR ADMISSION

Applicants for admission should obtain application forms from the School of Music, 804 West Belden Avenue, Chicago, Illinois 60614. The completed forms along with official transcripts of credits should be on file not later than four weeks before the opening of registration. Since there often is a delay in the forwarding of transcripts, applicants are advised to initiate the application procedures as early as possible. A non-refundable application fee is required of every student applying for admission to the University as a degree-seeking student. When admission has been approved, the applicant will be apprised of the diagnostic examination schedule and interviews with graduate advisors.

DIAGNOSTIC EXAMINATIONS

Students who have been admitted to the master’s degree program must take diagnostic examinations in musicianship and, in some cases, the area of major concentration. These examinations, taken prior to initial enrollment, will be used to identify areas where additional emphasis may be suggested through self-study or choice of electives.
RESIDENCE REQUIREMENTS FOR THE MASTER OF MUSIC DEGREE

All courses for the master's degree must be taken at DePaul University. Graduate credit for courses completed at other institutions may not be applied toward the degree.

Students enrolled in the master's degree program must complete not fewer than eight quarter hours during at least three quarters. The three quarters need not be consecutive. A student registered for a minimum of 8 quarter hours in any term is considered a full-time student.

All requirements for the degree must be completed within three calendar years from the time a student is admitted to the degree program. For unclassified students removing deficiencies, this period will begin when all deficiencies are removed and admission to the master's degree program has been granted.

TERMINAL REQUIREMENTS FOR THE MASTER OF MUSIC DEGREE

Two terminal requirements are required of all students:

• a written comprehensive examination, in which the student must demonstrate a satisfactory knowledge of the theory, history, literature and practice of music, as well as the area of major specialization. The comprehensive examination may be taken at any time after 32 quarter hours of graduate credit have been earned;

• in performance, the presentation of a public recital; in composition, the completion of an original work; in music education, the completion of a final project; in jazz studies, performance track, the presentation of a public recital; composition track, the completion of a final writing project.

While preparation of the terminal requirement in the major may take place within some course or activity for which a student is registered for credit, additional academic credit is not granted for the project itself.
MUS

COURSE REQUIREMENTS FOR THE MASTER OF MUSIC DEGREE

A minimum of 44 quarter hours of graduate credit is required for the master of music degree. This total is divided between the CORE STUDIES (required of all Master's Degree Students), and the SPECIALIZATION REQUIREMENTS which relate uniquely to the area of specialization.

**CORE STUDIES (20 quarter hours)**
- Music history (MUS 428, 429, 430) ...................... 12
- Music research (MUS 400, 401) .......................... 4
- Analysis (COM 304 or 305) .................................. 4
  (Composition majors: COM 305 required) .............. 20

Following are the specific course requirements for each of the degree programs:

<table>
<thead>
<tr>
<th>PIANO PERFORMANCE</th>
<th>PERCUSSION PERFORMANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>core studies</td>
<td>core studies</td>
</tr>
<tr>
<td>applied piano</td>
<td>applied percussion</td>
</tr>
<tr>
<td>piano ensemble</td>
<td>concert band, symphony</td>
</tr>
<tr>
<td>piano pedagogy</td>
<td>orchestra or wind</td>
</tr>
<tr>
<td>electives</td>
<td>ensemble</td>
</tr>
<tr>
<td></td>
<td>percussion pedagogy</td>
</tr>
<tr>
<td></td>
<td>electives</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>12</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>44</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BRASS PERFORMANCE</th>
<th>WOODWIND PERFORMANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>core studies</td>
<td>core studies</td>
</tr>
<tr>
<td>applied brass</td>
<td>applied woodwind</td>
</tr>
<tr>
<td>concert band, symphony</td>
<td>concert band, symphony</td>
</tr>
<tr>
<td>orchestra or wind</td>
<td>orchestra or wind</td>
</tr>
<tr>
<td>ensemble</td>
<td>ensemble</td>
</tr>
<tr>
<td>brass concepts</td>
<td>hist &amp; lit of WW's</td>
</tr>
<tr>
<td>electives</td>
<td>WW orch repertoire</td>
</tr>
<tr>
<td></td>
<td>electives</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>44</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VOICE PERFORMANCE</th>
<th>COMPOSITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>core studies</td>
<td>core studies</td>
</tr>
<tr>
<td>applied voice</td>
<td>composition</td>
</tr>
<tr>
<td>university chorus or chamber choir</td>
<td>problems, proceed., &amp; techn.</td>
</tr>
<tr>
<td>vocal pedagogy</td>
<td>in perf of new music</td>
</tr>
<tr>
<td>electives</td>
<td>20th C. mus topics</td>
</tr>
<tr>
<td></td>
<td>electives</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>44</td>
</tr>
</tbody>
</table>

222
### ORGAN PERFORMANCE
- core studies: 20
- applied organ: 12
- chamber music: 3
- electives: 9
- **Total:** 44

### STRING PERFORMANCE
- core studies: 20
- applied strings: 12
- symphony orchestra: 3
- string electives: 5
- electives: 4
- **Total:** 44

### MUSIC EDUCATION
- core studies: 20
- seminars in: 3
- music education: 12
- electives: 12
- **Total:** 44

### JAZZ STUDIES
#### COMPOSITION TRACK
- core studies: 20
- advanced jazz composition: 8
- jazz analysis: 4
- jazz pedagogy: 2
- jazz ensemble: 3
- jazz studies electives: 7
- **Total:** 44

#### PERFORMANCE TRACK
- core studies: 20
- applied study (jazz): 12
- jazz ensemble: 3
- jazz pedagogy: 2
- jazz chamber ensemble: 2
- jazz studies electives: 5
- **Total:** 44

### CERTIFICATE IN PERFORMANCE
The purpose of the program is to provide an intensive post-master's degree performance experience for a small number of highly accomplished performers. Entry into the program is based on evidence of ability to be successful in post-graduate level performance study. Other criteria include:

- completion of a master of music in performance degree or equivalent from an accredited institution;
- three letters of recommendation;
- an entrance audition which demonstrates performance ability at the post-master's level.

There are two elements in the program. First, applied music (private instruction), and second, related studies. Related study will normally consist of participation in the appropriate performing organization(s), and additional academic classes in a supportive area. The course requirements for the certificate in performance appear below:

- Applied Music (24 credit hours)
- Related Study (12 credit hours)
Courses

In the listing below, the number in parentheses following the course title indicates quarter-hour hours of credit.

APPLIED MUSIC—APM

APM 332, 333 Piano Pedagogy, I, II (2 hrs. each). History and mechanism of the piano; pedagogy involving tone, technique, pedal, style and ornamentation; critical evaluation of editions and various teaching materials.

APM 336 Voice Pedagogy (3 hrs.). Study and analysis of fundamentals of vocal training, evidenced in various teaching approaches—scientific, mechanistic, empirical.

APM 350, 351, 352 Interpretation of Vocal Literature (2 hrs. each). Study and demonstration of performance practices (16th-century to present), language orientation in Italian, French, German and English; stress on performance demonstrated by students.

APM 353, 354 Techniques of the Music Stage (2 hrs. each). Study, coaching, and rehearsal of music drama and opera.

APM 377, 378, 379 Guitar History and Literature I, II, III (2 hrs. each). Analytical and historical survey of the literature for plucked instruments from the Sixteenth through the Twentieth centuries.

APM 372 Orchestral Repertoire for Brass (3 hrs.). Study of standard orchestral repertoire.

APM 442 Accompanying Class (2 hrs.). Role of pianist as accompanist.


APM 426 History & Literature of Woodwinds (4 hrs.).

APM 428 Woodwind Orchestral Repertoire (3 hrs.).

APM 446 Percussion Pedagogy (3 hrs.).

APM 451 Piano Pedagogy (3 hrs.).

APM 471 Brass Concepts (3 hrs.).

APM 486 String Pedagogy (2 hrs.).

APM 496 Voice Pedagogy (2 hrs.). Course is designed to enhance APM 336. The Materials and advanced projects will be assigned at the discretion of the instructor.

APM 497 Seminar (2 hrs.). A seminar for performance majors and others, in which emphasis is placed on performance practices, program building, and other areas connected with a performing career.

MUSICIANSHP—MUS

MUS 300 Conducting I (2 hrs.). An introduction to conducting; rudiments of baton technique, instrumentation and score reading.

MUS 301 Conducting II (2 hrs.). A continuation of Conducting I; concentration on style and expression; consideration of rehearsal techniques; choral conducting practices; podium experience. (Prerequisite: MUS 300.)
MUS 314, 315 Essentials of Jazz I, II (2 hrs. each). Harmonizing melodies by the use of advanced harmonies and techniques of modern chord substitutions. Developing the ability to play “by ear.”

MUS 316 Essentials of Jazz III (2 hrs.). Improvisation with particular emphasis on the “blues” arranging and accompanying techniques; a survey of recent trends in popular music.

MUS 324-325-326 Essentials of Jazz IV, V, VI (2 hrs. each). Advanced techniques with emphasis on performance at the keyboard. (Prerequisite: MUS 314-315-316.)

MUS 327, 328, 329 Jazz Arranging I, II, III (3 hrs. each). Investigation of jazz harmony, and concepts of weight and density in scoring for jazz ensemble, studio orchestra, and jingle writing.

MUS 330 The Business of Music (2 hrs.). A study of contracts for artists, agents, managers, and producers, and an investigation of copyrights; BMI ASCAP, and unions.

MUS 331 Jazz Arranging and Composition IV (3 hrs.). Further exploration of jazz harmony including substitutions, quartal voicings, modality, compositional devices, and third stream techniques.

MUS 334, 335, 336 Jazz Improvisation I, II, III (2 hrs. each). Techniques of jazz improvisation with an emphasis on basic chord construction and melodic line development. (Prerequisite: MUS 316 or consent of instructor.)

MUS 344-345-346 Jazz Improvisation IV, V, VI (2 hrs. each). Advanced techniques of improvisation, utilizing transcriptions, patterns and more involved chord construction.

MUS 380 Piano Literature (2 hrs.). A history of piano literature from the baroque through the 20th-century; emphasis on the development of musical style with particular reference to significant compositions, performances and recordings.

MUS 381 History of Opera (2 hrs.). A history of opera from the early 17th-century through the 20th-century; emphasis on the development of musical style with particular reference to significant operas, musical examples, and recordings.

MUS 382 History of the Symphony (4 hrs.). A history of symphonic literature from the early 18th-century through the 20th-century; emphasis on the development of musical style with particular reference to significant compositions, musical examples, and recordings.

MUS 400 Music Research I (2 hrs.). Introduction to research types and techniques; bibliography and bibliographical sources; elementary statistics; the development of writing skills; analysis of research examples.

MUS 401 Music Research II (2 hrs.). Research in specific areas of interest, culminating in the writing of a major paper.

MUS 428-429-430 History of Music, I, II, III (4 hrs. each). A chronological survey of music in Western Civilization from the Middle Ages to the present, with an emphasis on musical style and compositional procedures.

MUS 440 Advanced Jazz Composition I (4 hrs.). Composition of works for combinations of up to nine instruments and jazz choir. Introduction to songwriting and calligraphy. Survey of jazz publications.

MUS 441 Jazz Analysis and Applications (4 hrs.). Studies of major jazz composers in transcription (Morton to Russell and Brookmeyer), including composers of the 70’s and 80’s (Brecker’s, Bley, Sawinul, and others). Application of styles in compositional projects.

MUS 442 Advanced Jazz Composition II (4 hrs.). Advanced topics in jazz and commercial composition, including the studio orchestra genre.
MUS

COMPOSITION – COM

COM 300 Orchestration (4 hrs.). Ranges, sonorities and characteristics of woodwind, brass, percussion and string instruments; orchestral studies of representative works from various periods; original transcription for orchestral ensembles. Not offered 1992-93.

COM 301 16th-Century Counterpoint (4 hrs.). Species counterpoint; melodic, formal and “harmonic” practices in Renaissance polyphony; free compositional in the style; analysis and in-class performance of Renaissance music and original student compositions.

COM 302 18th-Century Counterpoint (4 hrs.). Contrapuntal techniques of Bach and Handel; analysis, composition and in-class performance of solo, and ensemble works in the style.

COM 303 20th-Century Counterpoint (4 hrs.). Exploration of new contrapuntal techniques; analysis of selected compositions from the 20th-century, including works of Ives, Schonberg, Webern, Bartok, Hindemith and other as well as music of very recent times. Not offered 1992-93.

COM 304 Analytical Techniques (4 hrs.). Investigation of various analytical approaches to music syntax, structure, style and texture (including timbral and vocal or instrumental configurations) as exhibited in representative compositions from many historical periods.

COM 305 Analytical Studies (4 hrs.). Use of various analytical techniques for detailed studies of selected compositions from several periods of music. (Prerequisite: COM 304 or equivalent.)

COM 306 Introduction to Electronic Music (4 hrs.). Survey of electronic compositions and selected techniques employed in their sonic realization; introduction to the tools and equipment of electronic and computer music.

COM 307 Composition I (3 hrs.). Exploration of 20th Century compositional techniques; course activities include analytical assignments as well as creative projects.

COM 308 Composition II (3 hrs.). Continuation of COM 307, with greater emphasis on creative projects.

COM 309 Composition III (3 hrs.). Continuation of COM 308. (Prerequisite: COM 308.)

COM 310 Composition IV (4 hrs.). Advanced composition and analysis of new trends in representative compositions; development of plans for and initial work on individual senior composition project. (Prerequisite: COM 309 or equivalent.)

COM 311 Composition V (4 hrs.). Continuation of COM 310. Continued work on senior project. (Prerequisite: COM 310 or equivalent.)

COM 312 Composition VI (4 hrs.). Completion of senior project. (Prerequisite: COM 311 or equivalent.)

COM 441, 442, 443 Composition I, II, III (4 hrs. each). This course series will focus on advanced compositional issues at the graduate level and culminate in a final composition project.

COM 444 Problems, Procedures & Techniques in the Performance of New Music (4 hrs.). By means of discussion, performance analysis and when possible performance itself, this course will explore the performance challenges of new notation and the new complexities of traditional notation as a means of enlarging the student's technical and poetic capacities.
COM 445 Twentieth-Century Music Topics (4 hrs.). (Preferably taken after COM 444.) The subject matter of this course will change from year to year depending upon faculty availability and student interest. Possible subjects could include, among others:

- an in-depth study of a 20th-century composer or "school" of composers;
- a study of 20th-century aesthetics;
- a study of 20th-century theories;
- a study of music sociology of the 20th-century;
- a study of new trends such as multi-media, computer music, etc.

MUSIC EDUCATION—MED

MED 300 Elementary Instrumental Methods & Lab (2 hrs.).
MED 301 Junior High Instrumental Methods & Lab (2 hrs.).
MED 302 Secondary Instrumental Methods & Lab (2 hrs.).
MED 303 Elementary Vocal-General Methods & Lab (2 hrs.).
MED 304 Junior High Vocal Methods & Lab (2).
MED 305 Secondary Vocal Methods & Lab (2 hrs.). The study of philosophies, organization, administration, curriculum, evaluation, materials and methods as related to high school vocal and choral teaching. The laboratory class component emphasizes students development of such teaching abilities.
MED 310 Music Education for the Exceptional Child (2 hrs.). A survey course highlighting special education mandates which affect music educators, including profiles of various mildly handicapping conditions, alternative teaching strategies, and classroom management techniques.
MED 311 Contemporary Visual Marching Band (2 hrs.). Basic marching techniques and movements, selection and use of music, design and charting of shows.
MED 313, 314 Choral Literature I, II (2 hrs. each). An examination of Choral literature appropriate to the high school chorus. Students will explore appropriate topics and present evidence of suitable research.
MED 316 Literature for Wind Organizations (2 hrs.). A general survey of literature undertaken as well as specific projects related to school groups, wind chamber and ensemble organizations and concert bands. Particular emphasis will be placed on music utilizing contemporary techniques.
MED 360 Topics in Music Education (4 hrs.). Concentrated study of a selected area of music education. Topics are announced each fall.
MED 386 Orff Workshop (Level I) (3 hrs.) Introduction of Orff-Schulwerk through the process of integrating rhythm and movement, speech and song, rhythm instruments, Orff instruments, and soprano recorder for creative musicmaking with children in pre-school, elementary grades, and those with special needs; emphasis on materials in major and minor pentatonic scales.
MED 390 Orff Workshop (level II) (3 hrs.) Continuation of all aspects of the Schulwerk process; emphasis on a variety of materials, vocal, instrumental, and improvisational techniques for children in the middle and upper elementary grades; introduction of alto recorder; experience with Dorian, aeolian, phrygian modes, major and minor tonalities.
MUS

MED 391  **Orff Workshop (Level III) (3 hrs.)** Advanced course leading to certificate in Orff-Schulwerk; additional exploration of Schulwerk materials found in volumes 3-5 and techniques of contemporary music; further development of skills in arranging rhythmic, speech movement, and melodic materials for a variety of educational settings; recorder ensemble, lesson planning, and teaching opportunities.

MED 401, 402, 403  **Seminar in Music Education I, II, III (4 hrs. each).** The courses are designed (1) to study contemporary issues in music education that can have significant impact on classroom teaching (2) to study aspects of learning theory and relate them to music education (3) to study topics in curriculum design (4) to encourage study and research in areas of student interest and need.

**MUSIC ENSEMBLE – MEN**

MEN 401  **Wind Symphony (1 hr.).** Study and rehearsal of basic and new band repertoire in preparation for concerts presented regularly each year.

MEN 421  **University Chorus (1 hr.).** Rehearsals and performance of larger works of the choral repertoire.

MEN 431  **Orchestra (1 hr.).** Study and rehearsal of basic and new orchestral repertoire.

MEN 433  **Brass Choir (1 hr.).** Study and performance of brass choir repertoire.

MEN 437  **Wind Ensemble (1 hr.).** A select organization; rehearsal and performance of literature for ensembles of eight to forty players, with special emphasis on original literature for winds, from all periods.

MEN 441  **Chamber Music (1 hr.).** A practical application of performance techniques for advanced instrumentalists; repertoire adapted to the instrumentation of the group, according to the ability of class members; public performance.

MEN 447  **Chamber Choir (1 hr.).** A choral ensemble of selected voices.

MEN 481  **Jazz Ensemble (1 hr.).** Current performance styles for large ensemble; new arrangements and compositions are emphasized; performances are presented both on and off campus.

MEN 483  **Jazz Chamber Ensemble. (1 hr.)** Study, rehearsal, and performance of literature for jazz chamber groups.

MEN 485  **Jazz Vocal Ensemble.** Study, rehearsal and performance of literature for jazz ensemble.

MEN 486  **Jazz Vocal Workshop.** Survey of contemporary jazz and pop vocal techniques. Primary emphasis on developing jazz vocal solo and ensemble performance skills.

The following ensembles qualify as fulfilling the large ensemble requirement: MEN 101 Wind Symphony, MEN 121 University Chorus, MEN 131 Orchestra, MEN 221 Wind Ensemble.

MEN 491  **Contemporary Ensemble (1 hr.).** Rehearsal and performance of a broad spectrum of contemporary music.
SCHOOL
FOR NEW
LEARNING
ADMINISTRATION

David O. Justice, M.A.
Dean
Miriam Ben-Yoseph, Ph.D.
Associate Dean
Catherine Marienau, Ph.D.
Director, Graduate Program
Donna Younger, Ph.D.
Director, Undergraduate Program
Mary Jane Dix, M.P.S.
Assistant Dean for Administration
Jeanne Larmee, M.A.
Assistant Dean for Suburban Campuses
Douglas Murphy
Assistant Dean for Admissions and Publications
Tony Cadena
Assistant to the Dean for Budget and Planning
Martha Ryan
Coordinator for Systems and Special Projects
Rita A. Stern
Assistant to the Dean for Special Projects
Miriam Ukeritis
Director, Institute for Leadership of Religious Organizations

PHILOSOPHY

ADMISSION

FACULTY

COMMON CURRICULUM

ACADEMIC ADVISORS

Anghesom Aatsbaha
Rhoda Feldman, M.A.
Diane Friese, B.A.
Antoinette Gaines, M.M.
Pamela Meyer, M.A.
Trudy Schragal
Kenn Skorupa, M.Ed.
Peggy St. John, M.A.
The Master of Arts for Practicing Professionals

The School for New Learning, DePaul's alternative college for adult learners, has served students over the age of 24 since 1972. In 1984, SNL received a major grant from the U.S. Department of Education to design a new model for graduate professional education, the Master of Arts for Practicing Professionals.

The master's program offers students, with at least three years of working experience related to their proposed field of study, an opportunity to tailor a program to fit their individual professional and personal needs. In addition to an individualized "professional concentration," all students complete a common curriculum designed to strengthen and refine skills in assessment, critical thinking, moral reasoning, communication, and interpersonal skills.

Students come from fields which are not readily served by existing graduate programs, either because these fields are new or rapidly changing or because a student wishes to take an existing field in new directions. A few students have completed programs of graduate study previously and now want to update and expand their skills. Because much of the program is completed on an independent basis, students' pacing through the program varies; in general, however, program completion requires between 18 and 24 months. As graduates of this accredited program of DePaul University, students receive a Master of Arts degree, with a professional concentration in their field of study.

David O. Justice, M.A., Dean
SNL

Each student designs a professional program with the guidance of a faculty mentor from the college faculty and a professional advisor who is an established practitioner in the student’s chosen field. The faculty mentor helps to guarantee that the student’s individualized program meets the highest academic standards of the University, and provides on-going academic advisement during the program. The professional advisor helps the student refine the focus of the professional area and identify appropriate learning activities.

Admission

Criteria for Admission

All applicants must meet the following criteria:

1. Appropriate professional context:
   a) a minimum of three years of experience working in a field(s) related to the Professional Concentration,
   b) ongoing access to a work setting in which the Professional Concentration can be practiced.

2. Adequate academic preparation:
   a) a Baccalaureate degree from an accredited institution,
   b) skills in writing, critical thinking, and self-direction adequate for graduate-level learning.

3. Adequate academic planning:
   a) clearly articulated and attainable educational and career goals,
   b) a defined Professional Concentration congruent with these goals and the demands of the profession,
   c) understanding of how the SNL/MA program would meet the student’s educational needs.

Students are accepted to the master’s program in autumn, winter and spring terms. Classes meet at DePaul’s Loop Campus and at the Oak Brook Center. Information sessions are scheduled regularly in the Loop and at both suburban campuses. For specific dates and times, contact:

Loop Campus
Seventh Floor, Administration Center
243 S. Wabash
Chicago, Illinois 60604
312/362-8001

O’Hare Campus
Second Floor
3166 River Road
Des Plaines, Illinois 60018
708/296-5348
312/362-5354

Oak Brook Campus Suite 200
Two Westbrook Corporate Center
Westchester, Illinois 60154
708/362-2020
312/362-5800
Faculty

Miriam Ben-Yoseph, Ph.D., Assistant Professor; Associate Dean ...... Northwestern University
Morry Fiddler, Ph.D., Associate Professor ........................................ University of Minnesota
Beverly Firestone, M.A., Assistant Professor ................................. University of Michigan
Renee Gilbert-Levin, M.A., Assistant Professor ............................. Cornell University
Edward Harris, Ph.D., Associate Professor ................................. University of Massachusetts at Amherst
Mechthild Hart, Ph.D., Assistant Professor ................................. Indiana University
David O. Justice, M.A., Associate Professor, Dean ...................... Indiana University
Jean W. Knoll, Ph.D., Assistant Professor ................................. University of Chicago
Catherine Marienau, Ph.D., Associate Professor, Program Director ...... University of Minnesota
John Rury, Ph.D., Associate Professor ................................. University of Wisconsin
Phyllis Walden, Ph.D., Associate Professor ................................. University of Missouri
David Shallenberger, Ph.D., Assistant Professor ...................... The Fielding Institute

Curriculum

The curriculum consists of four parts: assessment and planning, (which consists of the Professional Assessment Workshop and the Learning Plan Colloquium); the Common Curriculum; the Professional Concentration; and the Graduation Colloquium.

Both the Common Curriculum and the Professional Concentration are organized around sets of mastery criteria which define graduate-level learning, and which must be met by all students through a variety of learning activities. Activities in the Professional Concentration include coursework across the graduate and professional programs of DePaul, independent research, tutorials or guided readings, professional certificate programs, and documented prior learning. Because the program emphasizes experience as part of the learning process, each student also develops on-the-job projects to apply what is being studied in actual professional practice. All non-classroom professional projects are evaluated by the professional advisor or other appropriate expert.

Throughout the program, students are guided by an advisory committee that provides both academic and professional counseling.

The Professional Assessment Workshop

The Professional Assessment Workshop (PAW) is the final step of the admissions process. It is designed to acquaint new students with the philosophy and aims of the master’s program; to provide them with an opportunity to assess their own professional and academic priorities; and to allow both students and faculty to evaluate how well the master’s program will suit each student’s individual needs. Participation in this two-day workshop is by invitation only, after completion of all other phases of the application process. It is a required component of the master’s program curriculum and carries two hours of academic credit.
The Learning Plan Colloquium

The Learning Plan Colloquium is undertaken immediately after the Professional Assessment Workshop (PAW). Students attend this colloquium as members of a cluster consisting of the 12 to 18 students who participated together in the PAW. During this colloquium students become more fully acquainted with the program's approach to education; establish an academic committee consisting of the student, the faculty mentor, and the professional advisor; draft an initial learning plan for the Professional Concentration; and develop a fuller understanding of their field of professional study and the application of the liberal learning skills in professional practice. The Learning Plan Colloquium meets six times, supplemented by individual meetings with advisors, and carries three hours of academic credit.

The Common Curriculum (571-577)

The Common Curriculum is designed to develop and refine those skills of critical thinking, problem-solving, communications, interpersonal facility, and self-assessment which are rooted in the traditions of liberal education. Students move through the Common Curriculum in the cluster formed for the PAW.

The Common Curriculum consists of a series of seven colloquia, each meeting once a week for five weeks. Through assigned readings and structured discussion and exercises, students are given the opportunity to interact with one another as professionals from diverse fields, to experience varieties of perspectives on professional problems, and to develop and refine the liberal learning skills as they apply to their professional concentrations and their personal experience. Each colloquium carries two hours of academic credit.

571 Applied Research Methods

In this colloquium students are introduced to the applied research model used by the program. They learn how to use their experience as research data, and develop strategies for using the workplace as a laboratory for learning. The colloquium provides an overview of various research methodologies and project design, as well as hands-on practice in the use of assessment contracts for projects in the Professional Concentration. In addition, it provides practice in conceptualization and problem-framing at the graduate level, and discusses strategies for successful management of independent research and self-managed learning.

574 Models of Change

This colloquium is designed to develop students' awareness of the multiple dimensions of change, of the dynamics of change processes, and of their roles and responsibilities as change agents in various settings. Students apply systems thinking to change situations at individual, group, intergroup, and organization levels. They learn to set boundaries for change problems and formulate desired outcomes for the change. Students gain experience with a variety of change models, thereby recognizing models as tools for understanding and managing complex change processes. The change models help students conceptualize change issues from different perspectives and create richer possibilities for successful management of change problems.
572 Communications for Professionals
This colloquium focuses on the principles and practices of skilled interpersonal communication for a variety of audiences and settings. Students learn techniques for active listening, recognizing non-verbal cues and perceptual filters, giving and receiving feedback, conceptualizing communication objectives, and structuring and delivering clear messages with concise meaning. Students assess their own and each others' communication styles and work toward improvement in desired contexts. Some instructors emphasize students' giving structured presentations for critique by the group.

573 Group Process in the World of Work
In this colloquium students explore the special dynamics of small group interaction, and assess the resultant assets and liabilities of working in a group. Topics include: what groups need to pay attention to and how they need to proceed for optimum creativity and productivity; phases and stages of group development; the balance in the relationship between individual and group interests; functional and dysfunctional roles in groups; patterns of communication; and differences between effective leadership and effective membership in groups.

575 Valuing Human Differences
This colloquium examines the emerging workforce by considering issues of stereotyping, prejudice, muting, and contrasting communication styles. Students gain both a deeper understanding of their own prejudices toward human differences, and a rationale for revaluing these differences. They explore the origins of such biases and enhance their awareness of the extent to which undervaluing of human differences takes place in everyday situations, and especially in the workplace. Some instructors bring an international emphasis. Students increase their effectiveness in verbal presentation skills, decision-making informed by values, and interpersonal skills.

576 Ethics in the Professions
In this colloquium students identify and respond to ethical issues which confront them in their professional roles. They practice distinguishing ethical from non-ethical questions. Discussion of ethical dilemmas and case studies stimulate reflection on individual and societal moral values, and help students recognize recurring problems of values arising in their professional settings. Students are exposed to a variety of resources from the literature of ethics which they may apply now and in the future in identifying and evaluating alternatives for resolving ethical dilemmas. The colloquium focuses in particular on how ethical issues arise in professional practice and the use of ethical theory in responding to ethical challenges and perplexities.

577 Leadership
This capstone colloquium builds upon the change theme which was introduced in the models of change colloquium and expanded upon throughout the series. The emphasis in this colloquium is on transformational leadership and on paradigm shifts needed to adapt to a changing world. Students learn about the evolution in thinking about leadership by examining current literature and research findings. Students explore key principles along the management/leadership continuum and experience applying these principles to their professional contexts. In this colloquium, students re-examine all of the liberal learning skills as facets of effective leadership in the midst of complex change.
578 Assessment Colloquium and Preliminary Review

The Assessment Colloquium meets once per quarter throughout the common curriculum and provides an opportunity for students to make connections among the colloquium topics, the liberal learning skills, and the professional concentration. Special emphasis is given to encouraging students' progress in their professional concentrations. Upon successful completion of the Preliminary Review, students are formally admitted to candidacy for the master's degree. This assessment and review process carries two hours of academic credit.

551-554 The Professional Concentration

The Professional Concentration is the individualized portion of the curriculum in the master's program, designed by each student in consultation with a faculty mentor and a professional advisor. Its focus is on the development of skills and knowledge related to a field of professional practice. Using criteria provided by the program, the professional mastery criteria, students combine coursework with on-the-job applied research, independent study, professional certification examinations, seminars, and documented prior learning to tailor a program of study specific to their professional needs. While each student determines his or her own pace toward completion of the Professional Concentration, it is registered for and initiated concurrently with the four quarters of the Common Curriculum.

580-581 Master Work

Upon completion of four quarters of Common Curriculum and Professional Concentration, and with the approval of the mastery review committee at preliminary review, students register for two quarters of Master Work. During these two quarters, students complete any remaining portions of the Professional Concentration and undertake their final project, the Master Work.

The Master Work must be an original contribution to a professional field, and must demonstrate both theoretical knowledge and skillful application. As such, the Master Work serves as the final demonstration of the ability to apply liberal learning skills and theoretical information to professional practice. The final project is assessed by the student's professional advisor and at least one outside expert from the student's professional field.

590 Graduation Colloquium

The Graduation Colloquium is registered for upon successful completion of all other parts of the program, including the Master Work. During this half-day meeting, all graduating students meet with members of the mastery review committee to review their programs, reflect on the outcomes of their learning, respond to any remaining questions concerning the master work, and finalize the designation of their Professional Concentrations. This is followed by an open forum at which each graduate presents the results of the Master Work to other students, professional advisors, faculty, staff and invited guests.
THE
THEATRE
SCHOOL

Founded As
The Goodman School
of Drama In 1925
ADMINISTRATION
John Ransford Watts, Ph.D.
   Dean
John F. O'Malley, Ph.D.
   Associate Dean
John Bridges, M.A.
   Director of Administration & Assistant Dean
Leslie Shook, M.A.
   Theatre Manager
Anastasia Gonzalez
   Budget Manager
Aubrey Payne, B.A.
   Director of Admissions
Martha Morris, B.A.
   Director of Development
Lisa A. Quinn
   Press Representative
Caryl Givilancz
   Office Assistant

FACULTY

ADMISSION

CURRICULUM
Acting
Directing
Scene Design
Costume Design
Lighting Design

COURSES
The Théâtre School

When this school was founded in 1925 at The Art Institute of Chicago, it was called The Goodman School of Drama.

As we celebrated our sixty-seventh anniversary in 1992, we began our fourteenth year as a part of DePaul University. By all measurements the school is stronger now than it has ever been.

Although our name has changed, the essential life and purpose of the school remains the same. Our basic principles and standards are exactly what they have been for over 65 years. We are a conservatory, now a strong part of a vital urban university, and we operate with professional concentrations on the development of artists for the theatre and related professions.

The students now in our program follow the unbroken tradition of the many professionals who trained here before them. We welcome you to their ranks and to the graduate program of The Théâtre School.

John Ransford Watts, Ph.D., Dean
GRADUATE STUDY IN THE THEATRE SCHOOL

The Theatre School's graduate programs in the theatre arts are intensive and focused. As a leading drama school in the United States, The Theatre School functions as a conservatory. The central core of the School is an extensive program which produces more than one hundred and sixty performances for Chicago audiences each season.

The specific objectives of the graduate curriculum are to prepare the student for creative participation in the chosen major concentration at a high level of technical competence, to develop the specific skills and disciplines necessary for advanced achievement in the student's area of specialization, and to ready the student to meet the rigorous demands of the professional performance or production world.

Each Theatre School course builds and expands upon its predecessor. Work in the classroom is complemented by quarterly assignments in an intensive production schedule. By the time the student's program is complete, the graduate should be able to begin professional life confident that he/she has the tools and a way of working which will enable him/her to meet his/her career goals.

Facilities

The Theatre School is located at 2135 North Kenmore Avenue on DePaul's Lincoln Park campus. In addition to housing most Theatre School classes, the building provides rehearsal rooms, design studios, shop facilities, and faculty and staff offices. The building is minutes from downtown Chicago by elevated train, bus or car.

The DePaul Blackstone Theatre, purchased from the Shubert Organization in 1988, provides The Theatre School with professional standard, state of the art, theatre facility to match the professional standard of the school's training and productions. The school's public productions of The Theatre School Showcase, Playworks, and New Directors Series are fully realized at the Blackstone Theatre. The theatre is also used by several not-for-profit arts organizations in Chicago, the International Theatre Festival of Chicago, and an occasional feature film company, exposing Theatre School students to a broader view of the entertainment industry. The DePaul Blackstone Theatre is located in the South Loop in the heart of the city. The Theatre School bus transports students between the school and the theatre for performances.

The Theatre School is situated in the center of Chicago's off-Loop theatre movement. Neighboring theatre and performing arts companies include the Body Politic Theatre, Steppenwolf Theatre, Victory Gardens Theatre, Organic Theatre, Halsted Street Theatre Center, Touchstone Theatre, Welling Theatre, Royal George Theatre, Apollo Theatre Center, and the Theatre Building. The school's location and tradition make possible contact with innovative professional theatres, a resource unparalleled between the two coasts. In addition, the vastly increasing film and television industries in Chicago offer further training possibilities.
Faculty and Staff

In keeping with the school's concept of the dual importance of theory and practice and of producing a superior quality of instruction, The Theatre School's faculty and staff are highly qualified, both professionally and academically. The faculty is regularly supplemented by accomplished working professionals.

In addition, visiting artists and professionals appear in our guest speaker series, CHICAGO LIVE: THE ARTS. Among them have been Pulitzer Prize-winning playwrights Edward Albee and David Mamet; actresses Dorothy Loudon, Shelley Winters and Jean Stapleton; Broadway stars Donna McKechnie (A CHORUS LINE) and Andre De Shields (AINT MISBEHAVIN'); Chicago's nationally known Steppenwolf Ensemble; actor/author Orson Bean; Academy Award-winning actor Gene Hackman; Chicago theatre critics Richard Christiansen and Glenna Syse; cast members from NICHOLAS NICKLEBY; comedian Shelley Berman; Obie Award-winning playwright Megan Terry; artistic directors Robert Falls (Goodman Theatre), Gregory Mosher (Lincoln Center for the Performing Arts), JoAnne Akalitis (New York Shakespeare Festival); alumnus Jim Ragona, singing ringmaster for Ringling Bros. and Barnum & Bailey Circus; the late Geraldine Page; actors Brian Dennehy, Peter Falk, John Mahoney, and Cleavon Little; and Academy Award-winning production designer Patrizia von Brandenstein (AMADEUS).

Guest Artists who have worked closely with students in productions have been James Earl Jones, Lillian Gish, Len Cariou, Zoe Caldwell, and David William, artistic director of the Stratford Festival, Ontario. Guest workshops have been given by professional clown Steve Smith (Ringling Bros. and Barnum & Bailey Circus); stage combat experts David Boushey and James Finney; famed Japanese Kabuki actor/director Onoe Kuroemon II; musical theatre actor Carl Hall (THE WIZ). Marie Hilgemann of the Guthrie Theatre conducted a dye and paint workshop on techniques used in costume fabrication. Peter Wood, artistic director of Britain's National Theatre, taught a masters class for professional actors. Playwright Pamela Blake previewed her play BLACKBIRD as a playwright-in-residence with The Theatre School Showcase; playwright Max Bush presented his new plays AALUMAURIA: THE VOYAGE OF THE DRAGON FLY and 13 BELLS OF BOGLEWOOD as playwright-in-residence with The Theatre School Playworks. Academy Award-winning film director and producer Peter Werner and film and television actor Ted Wass conducted intensive weekend workshops on Acting for Film and Video; and Chicago's master of comedy improvisation, Del Close (Second City and Saturday Night Live writer and comedy coach), taught a workshop to student actors in Comedy Improv.

John Ransford Watts, Ph.D., Dean .............. Union Graduate School
Christine Adaire, M.F.A., Voice and Speech ....................... University of Washington
Anthony Adler, B.A., History/Criticism ................... Carnegie-Mellon
Jane Alderman, B.A., Audition ................. Adelphi University
David L. Avcolie, M.F.A., Acting ................... Southern Methodist University
Jeff Bauer, M.F.A., Scene Design ................... Northwestern University
Tim Brawkt, B.F.A., Master Carpenter .......... Central Michigan University
John Bridges, M.A., Director of Administration and Assistant Dean ....... Western Illinois University
William Brown, Acting ................... American Conservatory Theatre
Dennis Brozynski, B.F.A., Drawing ............... Art Institute of Chicago
Bill Burnett, M.F.A., Voice and Speech .............. Ohio University
Linda Buchanan, Scenic Design .................. Northwestern University
Abbott Chrisman, M.F.A., History/Criticism ......... The Theatre School, DePaul
Nan Cibula-Jenkins, M.F.A., Costume Design ........ Yale University
John Culbert, M.F.A., Lighting Design .............. New York University
James Curtis, Transportation ................. San Diego State University
Mark Elliott, M.F.A., Musical Theatre .............. San Diego State University
Malcolm Ewen, B.A., Stage Management .............. Amherst College
THE

Ilyssa Fradin, B.A., Group Sales Assistant ........................................ University of Indiana
Judith Geichman, M.F.A., Drawing .................................................. Art Institute of Chicago
Caryl Givilancz, Office Assistant
Anastasia Gonzalez, Budget Manager
Phyllis E. Griffin, M.F.A., Voice and Speech ..................................... Goodman School of Drama
Gabriel Halpern, M.A., Movement ...................................................... Goddard College
Betsy Hamilton, B.F.A., Movement .................................................... University of Texas
Rob Hamilton, B.F.A., Scene Design ................................................... University of Southern Mississippi
Stephen Houglte, Ph.D., Dramatic Theory .......................................... Cambridge University
Donald W. Ilko, Ph.D., Acting ......................................................... Case Western Reserve University
Bella Itkin, Ph.D., Acting ................................................................. Western Reserve University
Jeffrey Jenkins, Movement
John Jenkins, B.A., Movement .......................................................... Pittsburgh State University
Trudie Kessler, M.F.A., Voice and Speech ........................................... University of California, Irvine
Ron Mark, M.F.A., Playwriting .......................................................... St. Xavier College
Rita M. McAteer, B.A., Assistant Theatre Manager ............................. University of Rhode Island
Dawn McKesey, Assistant to the Costume Shop Manager
Janet C. Messmer, M.A., Costumier .................................................... University of Illinois, Urbana
Martha Morris, B.A., Director of Development .................................... Spring Hill College
Kimosh Murphy, B.A., Movement ...................................................... Southern Illinois University
Ric Murphy, M.A., Acting ................................................................. University of Washington
Joseph Nieminski, B.F.A., Scene Design ................................. Art Institute of Chicago
Cathy Olson, B.F.A., Stitcher .............................................................. North Park College
John O'Malley, Ph.D., Associate Dean .............................................. Florida State University
James Ostholthoff, M.F.A., Acting and Directing .............................. Art Institute of Chicago
Aubrey Payne, B.A., Director of Admissions ...................................... Notre Dame University
Richard Pettengill, M.A., History/Criticism ....................................... University of Chicago
Lisa A. Quinn, B.F.A., Press Representative ...................................... University of Iowa
Barbara Raispis, Secretary to the Director of Development
Gerald Reynolds, Carpenter
Kevin Rigdon, Lighting Design
Leslie Riley, Movement
Michael Rourke, M.F.A., Lighting Design ......................................... University of Virginia
Leslie Shook, M.A., Theatre Manager ................................................. University of Illinois, Chicago
Joseph Slowik, M.F.A., Acting and Directing .................................... Art Institute of Chicago
Jennifer Smith, B.F.A., Production Coordinator ................................ The Theatre School, DePaul
Wayne W. Smith, B.F.A., Property Master ......................................... University of Illinois, Urbana
Michael Sokoloff, M.F.A., Stage Combat .......................................... New York University
Patricia Suchy, M.F.A., Dramatic Literature ....................................... Northwestern University
Jeffrey Webb, B.A., Assistant Theatre Technical Director,
Blackstone Theatre ................................................................. Southern Methodist University
Peter Wittrock, Voice and Speech, Acting
Kathleen Wright, Movement
Frank Wukitsch, M.F.A., Technical Director .................................... Art Institute of Chicago
Nan Zabriskie, M.F.A., Make-up ....................................................... University of Minnesota

246
Programs of Study

The Theatre School offers programs leading to the Master of Fine Arts degree in the areas of acting, directing, scene design, costume design and lighting design. The minimum quarter hour requirements vary from program to program. The student in scene or costume design takes a minimum of 114 graduate credits, directing students 144 graduate credits, and acting students 150 graduate credits. All programs require a three year course of study, though advance placement credit is sometimes available in scenic or costume design. Specialization requirements are listed under major field requirements on page 237.

Admission

The first charter of DePaul University included a statement on nondiscrimination and the policy has been enforced vigorously for over 80 years. Students, faculty and the public are entitled to equal treatment regardless of race, creed or color. It is the policy of The Theatre School to make admission decisions without regard to the race, color, religion, age, sex, national origin or handicap of the candidate.

Admission to the Master of Fine Arts degree programs is based on evidence of ability to be successful in graduate study. Specific requirements include:

- Completion of an Undergraduate Degree.
- Three letters of recommendation.
- Demonstration of special competence in the major area through an audition or portfolio interview.

Applicants who do not fulfill these requirements may be enrolled as special students in basic undergraduate courses for such time as is necessary to make up any deficiencies.

AUDITIONS FOR CANDIDATES IN ACTING AND DIRECTING

Acting

Our auditions place special emphasis on the applicant’s potential for future growth. We believe that imagination, personal initiative, self-discipline, stamina, seriousness of commitment to the acting profession and trainability are fundamental.

By “trainability” we mean that we attempt to judge the applicant’s potential for growth. We believe that this potential can be assessed by evaluating how the student reveals inner resources through the work. We look for the student’s ability to focus personal energies in a relaxed manner which will enhance communication of the conflict the character faces in the context of the play. Students who get trapped in “characterization” or “style” tend to demonstrate their level of virtuosity rather than tapping their deeper, inner resources.

You are urged to select material for which you are temperamentally suited; preferably something in which you might conceivably be cast now or in the near future. Avoid material which causes you to disguise yourself or “put on” a character. You are asked to prepare two short contrasting pieces of two minutes each, one contemporary and one classical. The pieces selected should be from plays. Recital of poetry or cuttings from short stories are not acceptable. Concentration and a sincere interest in your pieces are important. During your audition, keep your attention on what you are doing rather than on the effect you are having on the audition committee.
You should be prepared to spend 2½ to 3 hours at the audition. The first half of the audition will be with a group and will entail physical and vocal activity. Please dress accordingly. The second part of the audition is when you will present your prepared pieces to the audition committee. You will be alone with the committee at that point and a 4-minute limit will be imposed (two minutes per monologue).

Directing

In addition to the audition process outlined above, directing students interview with faculty in the directing program and present a directorial analysis of a play previously assigned by the program head.

INTERVIEWS FOR CANDIDATES IN SCENE AND COSTUME DESIGN

Scene Design

During an interview, candidates will present a portfolio of work done that includes scene design renderings (or a model), working drawings, and if possible, painting elevations. We want to see evidence of artistic achievement, up to the time of application, in the medium that is best suited to the candidate. Slides and/or photographs of designs executed may be presented to augment the portfolio.

Costume Design

During an interview candidates should submit a portfolio of costume design renderings, some of which must be in a paint medium. The candidate should also include samples of sewing ability. Slides and/or photographs of designs executed may be presented to augment the portfolio.

Lighting Design

During an interview, candidates will present a portfolio of work that contains evidence of artistic achievement and creativity in the field that is best suited to the candidate. The portfolio should include materials demonstrating visual communication skills (drawings, renderings, etc.), technical communication skills (draftings, etc.), and design skills. Photographs, slides, light plots, sketches, concepts, and lighting paperwork are all appropriate if the candidate has theatrical design experience.

Procedures for Admission

Applicants for admission should obtain an application by writing the Director of Admissions, The Theatre School, 2135 N. Kenmore Avenue, Chicago, Illinois 60614 or by calling (312) 362-8374. Outside Illinois, you may call toll free: 1-800-4DEPAUL. Once the completed application, a photograph, a resume, three letters of recommendation, and official transcripts of undergraduate credit are on file, an audition or interview may be scheduled by contacting the Director of Admissions. There is a $10.00 audition fee and a $20.00 application fee. The student will be informed of his/her acceptance status as soon as possible after the audition/interview date (usually about two weeks) but only after his/her application file is complete.

Applicants are accepted for the fall quarter only.
RESIDENCE REQUIREMENTS FOR THE MASTER OF FINE ARTS DEGREE

All courses for the master of fine arts degree must be taken at DePaul University. Graduate credit for courses completed at other institutions may not be applied toward the degree, though in some exceptional cases they may be used as a foundation for advanced placement in the design areas only.

Candidates must complete nine quarters of a three year course of study. Each course of study is sequential and begins in the Fall Quarter only. While it is possible for a student to apply for a leave of absence for one year between two given years of study (i.e., between the second and third year, first and second year), it is never possible to skip one quarter within a single year.

All requirements for the degree must be completed within eight calendar years from the time a student is admitted to the degree program. For special students removing deficiencies, this period will begin when all deficiencies are removed and admission to the MFA degree program has been formally granted.

TERMINAL REQUIREMENTS FOR THE MASTER OF FINE ARTS DEGREE

In addition to completing the graduate credit hour requirements of the major program, each student must complete two or three terminal requirements:

1. A written comprehensive examination in the history of theatre and development of dramatic literature. This exam is given in the Fall of the third year. Reading lists are available for students who wish to begin early preparation.

2. A written comprehensive examination in the major area of study. This exam is given in the Spring of the third year.

3. For directors and designers, a graduate thesis project.

GRADES AND CONTINUANCE POLICY

Graduate students are expected to maintain a higher level of academic achievement than undergraduate students. The basic grade of "C+", or "C" will be acceptable in no more than half the graduate courses required in the major field. (See page 239 for grade information.)

A satisfactory grade in any given course and an acceptable GPA do not insure continuance in the program. At the end of each year, every student is evaluated by the faculty, not only in terms of his/her progress in class, but also in terms of overall growth within the chosen discipline, professional attitude toward the activities prescribed in the program, and professional potential. Retention in the program is by invitation of the faculty.
Major Field Requirements

I. MFA IN ACTING

First Year:
Acting I: 511, 512, 513
Voice and Speech I: 531, 532, 533
Movement I: 521, 522, 523
Rehearsal and Performance: 561, 562, 563
Stage Combat: 580

Second Year:
Acting II: 611, 612, 613
Voice and Speech II: 631, 632, 633
Movement II: 621, 622, 623
Graduate Seminar: 601, 602, 603
Technique: 599, 599, 599
Rehearsal and Performance: 661, 662, 663

Third Year:
Acting III: 711, 712, 713
Voice and Speech III: 731, 732, 733
Movement III: 721, 722, 723
Audition: 414, 415, 416
Thesis Project: 714, 715, 716
Rehearsal and Performance: 761, 762, 763

II. MFA IN DIRECTING

First Year:
Directing I: 581, 582, 583
Principles of Design for Directors: 541, 542, 543
Acting I: 511, 512, 513
Stage Management: 367, 368, 369
Rehearsal and Performance: 561, 562, 563

Second Year:
Directing II: 681, 682, 683
Visual Concepts: 641, 642, 643
Acting II: 611, 612, 613
Graduate Seminar: 601, 602, 603
Rehearsal and Performance: 661, 662, 663
250
Third Year:
Thesis Project: 781, 782, 783
Theatre Elective or Independent Study: 599, 599, 599
Rehearsal and Performance and/or Internship: 761, 762, 763

III. MFA IN SCENIC DESIGN

First Year:
Scene Design III: 441, 442, 443
Rendering I or II: (Level by Advisement)
Theatre Elective or Independent Study: 599, 599, 599
Production Practice I: 571, 572, 573

Second Year:
Visual Concepts: 641, 642, 643
Design Elective: (Variable)
Theatre Elective or Independent Study: 599, 599, 599
Graduate Seminar: 601, 602, 603
Production Practice II: 671, 672, 673

Third Year:
Thesis Project: 741, 742, 743
Theatre Elective or Independent Study: 599, 599, 599
Production Practice III and/or Internship: 771, 772, 773

IV. MFA IN COSTUME DESIGN

First Year:
Costume Design III: 444, 445, 446
Rendering I or II: (Level by Advisement)
Theatre Elective or Independent Study: 599, 599, 599
Production Practice I: 571, 572, 573

Second Year:
Visual Concepts: 641, 642, 643
Design Elective: (Variable)
Theatre Elective or Independent Study: 599, 599, 599
Graduate Seminar: 601, 602, 603
Production Practice II: 671, 672, 673

Third Year:
Thesis Project: 741, 742, 743
Theatre Elective or Independent Study: 599, 599, 599
Production Practice III and/or Internship: 771, 772, 773
V. MFA IN LIGHTING DESIGN

First Year:
Lighting Design III: 447, 448, 449
Rendering I: 384, 385, 386
Survey: 381, 382, 383
Set Design course*
Production Practice: 571, 572, 573

Second Year:
Visual Concepts: 641, 642, 643
Drawing II: 284, 285, 286
Graduate Seminar: 601, 602, 603
Design/Tech Elective
Production Practice: 671, 672, 673

Third Year:
Ind. Study (Lighting IV): 599
Rendering II: 484, 485, 486
Design/Tech Elective
Thesis Project: 741, 742, 743
Prod. Prac./Internship: 771, 772, 773

* level to be determined by the experience of the student

Courses

With the exception of Stage Combat, Independent Study and Rehearsal and Performance, Theatre School courses are minimally a year in length. Course goals are realized annually rather than quarterly. The courses below are offered and registered for in a fall, winter, spring sequence.

284, 285, 286 Drawing II. Advanced drawing, including figure drawing, for design and technical students. (2 quarter hours.)

367, 368, 369 Stage Management. This course develops the skills required of the working stage manager. Through discussion and application students work problems of stage management through to practical solutions. (1 quarter hour.)

381, 382, 383 Survey: Art, Architecture, Fashion, and Furniture. The styles and aesthetics of Western European art, architecture, fashion and the decorative arts from ancient Egypt through the first half of the 20th century are examined. Emphasis is placed on periods and countries that are most important to the theatre. (4 quarter hours.)

384, 385, 386 Rendering I. The course consists of exercises, studies and renderings using values of gray to achieve the illusion of 3-dimensional form. With a variety of drawing and painting materials, students work from gradually more complex still-life set ups, under controlled lighting, and from a clipping file of research which they compile.
414, 415, 416 Audition. Students experience handling the range of possible audition situations. Topics include selecting and preparing materials, building a repertoire, and sight reading. Guest professionals lecture on practical survival techniques from job hunting to union membership. The work of the class culminates in Talent Linkage Chicago Day when students audition for an audience of invited agents, casting directors, and directors. (2 quarter hours.)

441, 442, 443 Scene Design III. Students complete assignments in the conceptual analysis and fulfillment of projects covering a wide variety of genres, including designs for the classical and modern drama, opera, and the ballet. As a corollary, portfolios of professional caliber are developed. (3 quarter hours.)

444, 445, 446 Costume Design III. Costume design for the diverse styles of the pre-modern drama evolving through lecture and project work. Projects will include script interpretation, advanced rendering techniques, developing a professional portfolio, and discussions on career planning. (3 quarter hours.)

447, 448, 449 Lighting Design III. Complete lighting design projects in a variety of styles and methods of presentation including unit set, multi-set, musicals, operas. Cuing, scenery and background design will also be covered. (3 quarter hours.)

484, 485, 486 Rendering II. A practical study class in the graphics of set and costume design. Theoretical problems as well as assignments growing out of design class and the production program will result in sketches, renderings, draftings, and models produced according to their major interests and skills. (2 quarter hours.)

511, 512, 513 Graduate Acting I. Through scene study and improvisation, the actor develops working habits which will aid him/her in rehearsal as well as performance. Special attention is given to moment by moment study of beat intention, relationship, obstacle, conflict, and theme. Emphasis is placed on developing a role throughout the play. (4 quarter hours.)

521, 522, 523 Movement I. The building of kinesthetic awareness, with emphasis on developing a generally capable, articulate physical instrument; understanding the restrictions of habit; exploring dynamics and increasing the ability to make dynamic choices. (2 quarter hours.)

531, 532, 533 Voice and Speech I. Fundamental work consists of alignment, relaxation and breathing, the development of free voice flow, resonance and focus. (2 quarter hours.)

541, 542, 543 Principles of Design. This course is structured to develop in the student director an understanding of the design process and to foster a visual sensitivity to the dramatic content. It explores the collaboration between the director and the designer. (4 quarter hours.)

561, 562, 563 Rehearsal and Performance I. Graduate acting and directing students are continually involved in rehearsal and performance of plays in the Showcase, the Playworks Series, and Workshop productions. Acting students constitute the casting pool for the school. (5 quarter hours.)

571, 572, 573 Production Practice I. To be taken by all design and technical students. Design area duties include practical work on production-planning, constructing, painting, and running. Technical area duties include practical work on productions in construction, rigging, and crewing sets; rigging and crewing lighting and sound tape design, and stage management. (6 quarter hours.)

580 Stage Combat. Students learn the fundamentals of hand to hand combat and weaponry with a focus on developing skills safely and effectively for the stage. (1 quarter hour.)

581, 582, 583 Directing I. The course covers the director's pre-production preparation, the theatre space, elements of composition and picturization, and the relationship between the director and the actor. Through lecture, discussion, and performance projects, the goal is to develop a common vocabulary useable in the wide variety of theatrical situations the modern director is likely to encounter. (3 quarter hours.)
601, 602, 603 Graduate Seminar. The course familiarizes the student with the requisites of the thesis project and prepares the student to successfully complete this graduate requirement. Additionally, students review material in preparation for the comprehensive exam in the history of theatre and dramatic literature. (3 quarter hours.)

611, 612, 613 Graduate Acting II. This class in Period Acting provides the student with basic skills to perform Shakespeare, Restoration, Eighteenth Century Comedy, and Moliere. Special focus is given to scansion and verse-speaking. This study is coordinated with both movement and voice and speech classes. (5 quarter hours.)

617, 618, 619 Technique. An advanced level acting course which concentrates the work on carefully selected exercises, monologues, and scenes, in order to develop physical, sensorial, and emotional skills in preparing a role. (1 quarter hour.)

621, 622, 623 Movement II. The work is focused on the exploration of effort and how to function within the boundaries of form. Period techniques will be taught, as well as some contact with the structure of musical theatre. This class is taught in conjunction with Graduate Acting II. (2 quarter hours.)

631, 632, 633 Voice and Speech II. Individual voice and speech skills are refined through monologues, scenes and further exploration of vocal and physical energies. Dialect study includes Standard British, Cockney, Irish and American Southern. All work emphasizes integration of skills and the development of self-sufficiency. (2 quarter hours.)

641, 642, 643 Visual Concepts. An investigation, through research and discussion, of the conceptual problems of physically mounting specific, assigned scripts from the classic and modern theatre, covering a broad stylistic range. Students will submit proposals for designs and justify their ideas through literary and pictorial research. The directorial and collaborative problems of arriving at a production concept, up to, but not including fully-realized design documentation, is emphasized through a series of projects. (3 quarter hours.)

661, 662, 663 Rehearsal & Performance II. See 561, 562, 563. (5 quarter hours.)

671, 672, 673 Production Practice II. See 571, 572, 573. (6 quarter hours.)

681, 682, 683 Directing II. A laboratory in which student directed scenes are presented for discussion and criticism. Each directing student directs up to six scenes during the year. (3 quarter hours.)

711, 712, 713 Graduate Acting III. A master class in scene study taught by visiting professional actors who are also intended to act as liaison between the student and the professional world. (3 quarter hours.)

721, 722, 723 Movement III. Three quarters of independent study projects will allow complete focus on individual work. Students will be advised by movement faculty in projects that help them develop in particular areas of need or interest. (2 quarter hours.)

731, 732, 733 Voice and Speech III. Students focus on applying the principles of release and relaxation to more complex skill development. Topics include dialects, singing, character voice and continued work on specific speech skills. (2 quarter hours.)

741, 742, 743 Thesis Project in Design. The production of the MFA Thesis, consisting of portfolio and manuscript, under the supervision of the advisor and the head of graduate studies. (9 quarter hours.)

761, 762, 763 Rehearsal and Performance III. See 561, 562, 563. (5 quarter hours.)

771, 772, 773 Production Practice III. See 571, 572, 573. (6 quarter hours.)

781, 782, 783 Thesis Project in Directing. Produced on the Theatre School's Blackstone stage, the student directed thesis production will receive as complete a physical mounting as possible given the demands of any specific season. Performances are seen by the general public. (9 quarter hours.)
HANDBOOK FOR GRADUATE STUDIES
The University

CAMPUSSES

DePaul University has four locations. The Lincoln Park Campus is situated about three miles north of the Chicago Loop in the vicinity of Webster (2200 N), Halsted (800 W) and Racine (1200 W). The College of Liberal Arts and Sciences, The School of Music, The School of Education, and The Theatre School are located on the 30 acre campus.

The Loop Campus, at the intersection of Jackson Boulevard and Wabash Avenue, houses the general administration of the University, the College of Law, the College of Commerce and the School for New Learning.

The O'Hare Campus is located near O'Hare Airport at 3166 River Road, DesPlaines—just north of the intersection of River Road and Devon. The Oak Brook Campus is located at Two Westbrook Corporate Center, Suite 200, in Westchester—on 22nd Street, just east of the I-294 Tollway. The College of Commerce, the College of Liberal Arts and Sciences, and the School for New Learning all offer courses at these sites.

UNIVERSITY LIBRARIES

The DePaul Libraries provide resources and services to students, faculty, and staff through five different units: The Lincoln Park Library, the Loop Campus Library, the Law Library, the Oak Brook Library, and the O'Hare Campus Library. The delivery of information and materials is increasingly linked to computer technologies. Access to materials in all the DePaul Libraries is provided through ILLINET Online, the Libraries' online catalog and circulation system. From the same terminal, students and faculty can identify and check out books from 39 other colleges and universities in Illinois, including the University of Illinois. A second component of ILLINET Online allows users to search the catalogs of over 800 libraries around the state. Furthermore, materials from libraries across the United States can be located and obtained through other computer networks. Electronic access to periodical articles and other information resources in the social sciences, business, humanities, and sciences is readily available through online and compact disc (CD-ROM data bases).

The combined collection of the DePaul University Libraries includes over 597,000 volumes, 265,000 microform volumes, over 8,000 current serial subscriptions, and a varied microcomputer software and audiosvisual collection. Information, brochures, and bibliographies are available in all five locations. The Library Research Workbook which freshmen complete in English 105 (Common Studies) provides an introduction to library services and resources.

The Lincoln Park Campus Library supports programs in the College of Liberal Arts and Sciences, the School of Education, the School of Music, and The Theatre School. Areas of particular strength are religion, philosophy, and Irish studies. Facilities include a media area for using audiosvisual materials and the Education Resource Center with curriculum materials for elementary and secondary school teaching, a slide library, a Career Information Center, and a collection of music recordings and scores. Rare book collections include the Napoleon Collection, the Dickens Collection, and the Sporting Collection, as well as numerous titles dealing with nineteenth century literature and book illustration. The University Archives focuses on various materials documenting the growth and development of DePaul.

The Loop Campus Library primarily focuses on business materials to support the programs of the College of Commerce but also has core collections of materials in other subjects. A Career Information Center provides resources on career choice, job search techniques, and company information. Other useful collections include the industry file and the corporate annual report file.
The library of the College of Law has an extensive collection of Anglo-American legal materials, and provides both basic and advanced resources needed for study and research in the law school curriculum. The collection includes reports of American federal and state courts; court reports of Great Britain; the codes, constitutions and statutes of all fifty states and American territories; materials on tax law; and legal periodicals. Designated an official depository for government publications, the Law Library provides a comprehensive collection of federal documents.

The Oak Brook and O'Hare Campus Libraries offer an innovative approach to library service by providing access to information using computers and telecommunications. There is no permanent book collection; electronic access to DePaul and other libraries' holdings is provided through ILLINET Online and OCLC. A CD-ROM based index covering more than 1,100 journals of academic and general interest is at each campus, as well as a core collection of over 400 business periodicals on microfilm. Books and other journal articles needed by students and faculty are delivered by a daily intra-university shuttle service.

ACADEMIC COMPUTER SERVICES

Academic Computer Services (ACS) provides facilities and resources for the purpose of instruction and research at DePaul University. DePaul's academic network consists of a VAX6410, an IBM 4381, a Harris Night Hawk. Local area networks of microcomputers are also provided on all DePaul campuses. Over 400 microcomputers and approximately 200 terminals are supported in student laboratories and classrooms.

Dial-in access is available 24 hours a day, 7 days a week on the main systems. Operators are on duty to assist users during all hours of operation.

**Loop Campus-Administration Center**
- Terminal Lab:
  - 243 S. Wabash, 4th Floor
  - Chicago, IL 60604
  - 312/362-8336
- Macintosh Micro Lab
  - 243 S. Wabash, Room 208
  - Chicago, IL 60604
  - 312/362-6126

**Lincoln Park Campus**
- Terminal and Micro Lab: (SAC)
  - 2323 N. Seminary, Room 192/193
  - Chicago, IL 60614
  - 312/362-8342
- Macintosh/Apple Ile Lab: (SAC)
  - 2323 N. Seminary, Room 472
  - Chicago, IL 60614
  - 312/362-8051
- Microcomputer Lab: (McGaw)
  - 802 W. Belden, Room 145
  - Chicago, IL 60614
  - 312/362-5208
- Microcomputer Lab: (Byrne)
  - 2219 N. Kenmore, Room 358
  - Chicago, IL 60614

**Lewis Center**
- Computer Learning Center
  - 25 E. Jackson, 13th Fl.
  - Chicago, IL 60604
  - 312/362-8342
- Macintosh Teaching Lab
  - 25 E. Jackson, Room 1006
  - Chicago, IL 60604
  - 312/362-8342

**Oak Brook Campus**
- Terminal & Micro Labs:
  - Two Westbrook Corporate Center
  - Westchester, IL 60154
  - 708/562-2020

**O'Hare Campus**
- Terminal & Micro Labs:
  - 3166 River Road
  - Des Plaines, IL 60018
  - 708/296-3344
Students have access to a variety of software applications, languages, and utilities. Word processing, statistical packages, database management, spreadsheets and specialized programs are available for coursework and research. Computers are used extensively throughout the undergraduate and graduate curriculum at DePaul.

Additional services provided by ACS include quarterly seminar offerings and a microcomputer purchase program. Both services are available to faculty, staff and students. The microcomputer purchase program provides discount purchase arrangements, hardware/software consultation, and end-user training.

Lab hours and a workshop schedule are available at any of the computer laboratories.

CAREER PLANNING AND PLACEMENT CENTER

The University has two offices offering career planning and placement services to graduate students and alumni—providing resources for those exploring career options as well as for those actively involved in a targeted job search. Appointments are available at either the Loop Campus, in room 1716 of the Lewis Center, or at the Lincoln Park Campus in room 306 of the Stuart Center.

DePaul's Career Planning and Placement professionals are committed to helping the student develop skills in identifying career opportunities, and seeking out and securing satisfying employment. The tools utilized by the staff include career and job search seminars, mock interviews, career libraries on both campuses, vocational interest inventories, and individual counseling.

Both full and part-time job leads are available through the Placement Center. Graduate students seeking a career change are especially encouraged to acquire work experience related to their career objective. Leads for immediate openings are continually listed and updated, and an active on-campus interview program gives students—and alumni access to career opportunities.

The Placement Center has recently developed an innovative program for the registration of full-time job seekers. A computerized data-base, the Candidate Selection Service allows candidate information to be matched to an employer's job specifications. Rapid turn-around time has dramatically improved the consideration given candidates referred from DePaul. An experienced level job fair is offered once a year in May to assist graduate students who have work experience in securing employment.

RESIDENCE LIFE

The Residence Life Office provides an off-campus housing listing service for DePaul faculty, staff, and students. This service lists available apartments in the Lincoln Park area. In addition, Residence Life has established a roommate listing service which is designed to help students find roommates for off-campus housing. In order to participate, students must submit a roommate listing form to the Residence Life Office. Upon receipt of these forms, students will be sent complete lists of all participants in the program, including names, addresses, and phone numbers. This service is limited to enrolled or accepted DePaul students. The Residence Life Office is located on the third floor of Stuart Center, 2324 N. Seminary Ave. (312/362-8020). Office hours are Monday through Friday, 8:30 a.m. to 4:30 p.m.
Accreditation

DePaul University is accredited by:
The American Assembly of Collegiate Schools of Business
The American Chemical Society
The American Psychological Association
The Association of American Law Schools
The National Association of Schools of Music
The National Council for Accreditation of Teacher Education
The National League of Nursing
The North Central Association of Colleges and Schools

DePaul is on the approved list of:
The American Bar Association
The Illinois Board of Higher Education
The Illinois Department of Registration and Education
The Illinois Office of Education, State Teacher Certification Board
The State Approving Agency for Veterans Training

DePaul University is a member of:
The American Association of Colleges of Nursing
The American Association of Colleges for Teacher Education
The American Association of Higher Education
The American Association of Theatre for Youth
The American Association of University Women
The American Council on Education
The Association of Catholic Colleges and Universities
The Association of Governing Boards of Universities and Colleges
The Chicagoland Advocates for Signed Theatre
The Consortium of Conservatory Programs
The Council for Adult and Experiential Learning
The Council of Graduate Schools
The Federation of Independent Illinois Colleges and Universities
The Illinois Arts Alliance
The Illinois League for Nursing
The International Association of Theatre for Children and Young People
The League of Chicago Theatres
The Midwest Alliance in Nursing
The National Association of Independent Colleges and Universities
The National Catholic Education Association
The National Council on Rehabilitation Education
Honor Societies

Alpha Lambda Delta
Beta Alpha Psi
Beta Gamma Sigma
Delta Mu Delta
Delta Sigma Pi
Golden Key National Honor Society
Omicron Delta Epsilon
Order of the Coif
Phi Alpha Delta
Phi Alpha Theta
Phi Delta Kappa

Phi Kappa Delta
Pi Kappa Lambda
Pi Sigma Alpha
Psi Chi
Sigma Delta Pi
Sigma Pi Sigma
Sigma Theta Tau
Sigma Xi
Theta Alpha Kappa

Board of Trustees

OFFICERS
Richard Heise, Chairman
Bide L. Thomas, Vice Chairman
John G. Weithers, Vice Chairman
Ernest R. Wish, Vice Chairman
Paul L. Golden, C.M., Secretary

MEMBERS
Murray Roger Allen
Mario J. Aranda
William L. Atwell
Celia Casas Battle
William J. Bauer
William E. Bennett
Norman R. Bobins
Edward A. Brennan
Victor J. Cacchione
Denise H. Carroll
Robert A. Clifford
David W. Fox
John F. Gagnepain, C.M.
Edward G. Gardner
Robert E. Goldberg
Howard S. Goss
Jack M. Greenberg
Richard A. Hanson
Sondra A. Healy
Sister Julia Huiskamp, D.C.
Byrd M. Kelly
Sister Anne C. Leonard, C.N.D.
John P. Minogue, C.M.
George Muñoz
Hugh F. O'Donnell, C.M.
Roger L. Plummer
John T. Richardson, C.M.
Prudencio Rodriguez De Yurre, C.M.
Lawrence C. Russell
John E. Rybolt, C.M.
John B. Simon
Rev. Kenneth Bryant Smith
William B. Snow
Harrison Steans
Eugene A. Tracy
Angelo Velasquez
Joseph E. Wilson
Paul C. Wilson
General Administration

John T. Richardson, C.M. .................................................. President
Gladys Styles Johnston .................................................. Provost
John R. Cortelyou, C.M. .................................................. Chancellor
Susy S. Chan ............................................................... Vice President for University Planning and Research
James S. Doyle .............................................................. Vice President for Student Affairs
Joyce A. Fecske ............................................................. Vice President for Human Resources
Paul L. Golden, C.M. ....................................................... Secretary of the University
John A. Grindel, C.M. ...................................................... Vice President/Executive Assistant to the President
Anne M. Kennedy .......................................................... Vice President for Enrollment Management
Robert L. Kozoman ........................................................ Treasurer of the University
Kenneth A. McHugh ......................................................... Vice President for Business and Finance
Herbert Newman ............................................................. Vice President for Development and Public Relations

Academic Information and Regulations

This bulletin is the official statement of the requirements, rules and regulations for the Graduate Programs offered by the College of Liberal Arts and Sciences, School of Education, School of Music, School for New Learning, and The Theatre School. Students are advised that each of the graduate divisions of the schools and colleges represented in this bulletin have additional academic information and regulations applicable to their graduate programs, which appears in other sections of this publication. Additionally, this bulletin does not constitute a contract between the student and the University. Every effort has been made to provide accurate, and firm information. The University reserves the right to revise the content of its Bulletins and Schedules, and to change policies, programs, requirements, rules, regulations, procedures, calendars and schedule of tuition and fees; to establish and modify admission and registration criteria; to cancel or change courses or programs and their content and prerequisites; to limit and restrict enrollment; to cancel, divide or change time or location or staffing of classes; or to make any other necessary changes.

A student upon admission to a graduate program is to follow the bulletin requirements in effect at the time of entrance. A student who is readmitted or who changes his or her program or enrollment status is subject to the terms of the bulletin in effect at the time of readmission or status change.

As a graduate student you assume the responsibility to know and meet both the general and particular regulations, procedures, policies, and deadlines set forth in this bulletin. All students are expected to adhere to the Student Code of Responsibility. The University follows the requirements outlined in the Family Educational Rights and Privacy Act of 1974 which outlines the rights of students to review their educational records. The procedures for such review and the rights of students in this regard are set forth in the Student Handbook.
ACADEMIC COUNSELING

Academic counseling helps to insure successful completion of graduate studies. If you are a degree-seeking student, contact your faculty advisor. If you are a non-degree seeking student or a student-at-large, contact either your graduate division office, or the appropriate department or program director.

COURSES AND CREDIT

No one is permitted to attend a class for which he or she has not been properly registered.

Credit is accumulated on the basis of quarter hours. The unit of credit is one quarter hour granted for 45 minutes of classroom work a week. The normal class extends over a ten-week period (or an accelerated five-week period in the summer). All courses carry four quarter hours of credit (2 2/3 semester hours), unless otherwise noted.

Students enrolled for eight or more quarter hours of credit are considered full-time. Those enrolled for less are considered part-time. For students fully employed, registration for two courses in a term is the suggested maximum.

Courses numbered 300 through 399 are advanced undergraduate courses. If listed in this Bulletin, they may be accepted for graduate credit within the limitations stipulated by the specific departmental chair or program director.

GRADES

Following is the key to the system of evaluating the academic achievement by the student of the educational objectives specified by the instructor in the course syllabus. These definitions apply to the straight letter grade. A plus grade represents slightly higher achievement than the straight letter grade. A minus grade represents slightly lower achievement than the straight letter grade.

A  The instructor judged the student to have accomplished the stated objectives of the course in an EXCELLENT manner.
B  The instructor judged the student to have accomplished the stated objectives of the course in a VERY GOOD manner.
C  The instructor judged the student to have accomplished the stated objectives of the course in a SATISFACTORY manner.
D  The instructor judged the student to have accomplished the stated objectives of the course in a POOR manner.
F  The instructor judged the student NOT to have accomplished the stated objectives of the course.
IN Temporary grade indicating that the student has a satisfactory record in work completed, but for unusual or unforeseeable circumstances not encountered by other students in the class and acceptable to the instructor is prevented from completing the course requirements by the end of the term. An incomplete grade may not be assigned unless the student has formally requested it from the instructor, and the instructor has given his or her permission for the student's receiving an incomplete grade.
R  Student is making satisfactory progress in a course that extends beyond the end of the term or in a project extending over more than one quarter.
W  Automatically recorded when the student files his withdrawal through the student's home college or school on or before the date designated in the academic calendar for such a withdrawal.
FX  Student stopped attending course. This is an apparent withdrawal. The grade can be changed to a "W" grade by the college administration without consulting the instructor if it is determined that the student attempted to withdraw but followed incorrect procedures, or on other administrative grounds. If not administratively removed, it is scored in the grade point average the same as an "F".

QUALITY POINTS

Quality points are awarded to a student in relation to the grade given and the number of quarter hours of credit attempted in the course. Quality points are awarded according to the following schedule:

A  4 times as many quality points as the credit hours assigned to the course.
A− 3.7 times the number of credit hours.
B+ 3.3 times the number of credit hours.
B  3 times the number of credit hours.
B− 2.7 times the number of credit hours.
C+ 2.3 times the number of credit hours.
C  2 times the number of credit hours.
C− 1.7 times the number of credit hours.
D+ 1.3 times the number of credit hours.
D  1 quality point for each credit hour in the course.
FFX (no quality points)
W, INC (quality points not assigned)

Illustration

<table>
<thead>
<tr>
<th>GRADE</th>
<th>QUALITY POINTS PER CREDIT HOUR</th>
<th>CREDIT HOURS ATTEMPTED</th>
<th>QUALITY POINTS MERITED</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4</td>
<td>x</td>
<td>16</td>
</tr>
<tr>
<td>A−</td>
<td>3.7</td>
<td>x</td>
<td>14.8</td>
</tr>
<tr>
<td>B+</td>
<td>3.3</td>
<td>x</td>
<td>13.2</td>
</tr>
<tr>
<td>B</td>
<td>3</td>
<td>x</td>
<td>12</td>
</tr>
<tr>
<td>B−</td>
<td>2.7</td>
<td>x</td>
<td>10.8</td>
</tr>
<tr>
<td>C+</td>
<td>2.3</td>
<td>x</td>
<td>9.2</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
<td>x</td>
<td>8</td>
</tr>
<tr>
<td>C−</td>
<td>1.7</td>
<td>x</td>
<td>6.8</td>
</tr>
<tr>
<td>D+</td>
<td>1.3</td>
<td>x</td>
<td>5.2</td>
</tr>
<tr>
<td>D</td>
<td>1</td>
<td>x</td>
<td>4</td>
</tr>
<tr>
<td>F.FX</td>
<td>0</td>
<td>x</td>
<td>0</td>
</tr>
</tbody>
</table>

W.IN.R Quality Points not assigned.

GRADE REQUIREMENTS

You must earn a grade of "B−" or higher to receive graduate credit for any upper level undergraduate course (300 level) that has been accepted for graduate credit.

You must achieve a minimal grade point average of 2.500 to graduate. A grade of "D+" or "D" is unacceptable for graduate credit, and if earned in a required course, the course must be repeated or substituted as directed by the chair of the area of concentration. "D+" or "D" grades remain on the academic record and are calculated into the cumulative grade point average.
PROBATION AND DISMISSAL

A student is subject to Probation as soon as his/her graduate GPA falls below 2.500. The student remains on Probation until four more courses are taken, at which time another evaluation is made. If, at that time, the student has failed to raise his/her GPA to the required level of 2.500 the student may be dismissed for poor scholarship, and prohibited from registering for additional course work.

A student who has been dismissed may, after a period of time, petition for reinstatement. The petition, addressed to Dean of the respective Graduate Division, would provide information that would demonstrate a change in the student's circumstances to an extent that would support successful completion of the student's degree program. The Dean's decision, based upon the merits of the petition and the recommendation of the faculty of the student's department, may, if favorable, stipulate conditions of reinstatement.

PLAGIARISM

Plagiarism is a major form of academic dishonesty involving the presentation of the work of another as one's own. Plagiarism includes but is not limited to the following:

The direct copying of any source such as written and verbal material, computer files, audio disks, video programs or musical scores, whether published or unpublished, in whole or in part, without proper acknowledgement that it is someone else's.

Copying of any source in whole or in part with only minor changes in wording or syntax even with acknowledgement.

Submitting as one's own work a report, examination paper, computer file, lab report or other assignment which has been prepared by someone else. This includes research papers purchased from any other person or agency.

The paraphrasing of another's work or ideas without proper acknowledgement.

Plagiarism, like other forms of academic dishonesty, is always a serious matter. If an instructor finds that a student has plagiarized, the appropriate penalty is at the instructor's discretion. Actions taken by the instructor do not preclude the College or the University taking further punitive action including dismissal from the University.

For further information about the University's policies on academic integrity in 1992-93 please consult the Student Handbook.

REGISTRATION PROCEDURES

Students enrolled at anytime during the previous year are eligible to register.

Continuing students register by telephone using DePaul's NIROL telephone registration system. Complete instructions will be mailed to all continuing, new and re-admitted students.

Registration In Courses in Other Colleges or Schools

Graduate students may be permitted to register for courses offered in other colleges or schools of the University. This registration requires the written permission of both their advisor and the College in which the courses(s) will be taken.
Residence Registration

Whether in residence or not, all admitted graduate students, master's and doctoral levels who will use the facilities of the University (library, laboratory, etc.) or who will consult with faculty members regarding theses, dissertations, or examinations, must be registered in each quarter.

Social Security Number

Your social security number will be required for registration. If you do not have such a number, you should apply for one at your local Social Security office. International students who do not have a social security number should contact their respective graduate division office. That office will assist the student in obtaining an identification number.

GRADUATION PROCEDURES
Degree Requirements

You must have successfully completed all of the general and specific degree requirements as listed in departmental or program sections of the bulletin under which you were admitted. Completed degree requirements can include the submitting of the dissertation or thesis or the research paper, examination scores, and, if necessary, grade changes. Students need to achieve a minimum grade point average of 2.500 to graduate.

Graduation with Distinction

Conferred upon a student who has maintained a 3.75 grade point average in the degree program, and passes with distinction the final oral, written examination or Master's papers "with distinction," where applicable.

Commencement

Graduation ceremonies are held in June of each year. If you wish to graduate "in absentia," you must request permission in writing from your Dean. If you cancel or are ineligible to graduate, you must re-apply for the next convocation.

Diploma

Graduation ceremonies are symbolic. Your diploma will be mailed shortly after the convocation.
Deadlines

Specific dates are established for submission to your graduate office of the completed graduation application and for completion of graduation requirements.

**Application for Graduation**
- June Commencement
- October Degree Conferral
- February Degree Conferral

**Deadline**
- January 31
- June 26
- October 9

**Completed Thesis or Dissertation**
- June Commencement
- October Degree Conferral
- February Degree Conferral

**Deadline**
- May 14
- August 28
- January 10

Tuition and Fees

DePaul University is a not-for-profit corporation. No student pays the actual cost of his or her education. Tuition and fees are held at their present level through gifts of alumni, foundations, corporations, the Vincentian priests and brothers and friends of the University. All policies are under continual review. Therefore, the Board of Trustees reserves the right to change its charges as conditions require.

Tuition and fees for services and materials are for the academic year 1992-93 are applicable only to graduate students.

**Graduate Student Tuition, per quarter hour:**

<table>
<thead>
<tr>
<th>Liberal Arts and Sciences</th>
<th>100-200 series, per hour</th>
<th>300-700 series, per hour</th>
<th>Computer Science courses in 300-600 series, per hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$208.00</td>
<td>$230.00</td>
<td>$259.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education</th>
<th>100-200 series, per hour</th>
<th>300-600 series, per hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$208.00</td>
<td>$230.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Music</th>
<th>100-200 series, per hour</th>
<th>300-700 series, per hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$218.00</td>
<td>$262.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>School for New Learning</th>
<th>All courses, per hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$230.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Theatre</th>
<th>Graduate 1-11 credit hours, per hour</th>
<th>Graduate 12+credit hour package, per term</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$296.00</td>
<td>$4,069.00</td>
</tr>
</tbody>
</table>

**General Fees**

Fees are not refundable
Graduate Application Fee ................................................................. $20.00
Readmission Fee ................................................................. 5.00
Registration Fee ................................................................. 10.00
Delinquency Fee ................................................................. 100.00
Deferred Examination Fee
  On Designated Dates ...................................................... 10.00
  At Times Not Designated .............................................. 20.00
Doctoral Dissertation Fee ............................................. 45.00
Thesis Binding (Per Copy) ........................................... 10.00
Each Transcript of Credit Fee ....................................... 3.00
Each Returned Check Fee .......................................... 25.00a

a. If a student gives the University a check that is returned by the bank upon which it is
drawn marked "Not Sufficient Funds," "Payment Stopped," or "Account Closed," a $25.00
charge will be assessed for each such occurrence.

MATERIAL FEES

See individual course descriptions for specific material fees.

TUITION PAYMENT POLICY

All tuition and fees are due DePaul University at the time of registration. All charges must
be paid in-full by the payment date. The payment dates for each term of the 92-93 aca-
demic year are:

  Friday, September 4, 1992—Fall Quarter
  Friday, December 18, 1992—Winter Quarter
  Friday, March 12, 1993—Spring Quarter

Tuition charges for any course registrations after the payment date must be paid in-full at
the time of registration.

Tuition is due by the payment date whether or not a bill has been received. If you have
not received a bill, you may contact the Accounts Receivable Office at (312) 362-8322 or (312)
362-8379 any time during business hours to determine the amount you are required to pay.

Payment must be received in the Cashier's Office or one of its depositories by the pay-
ment dates as indicated. Students may pay by check, money order, or credit card (Visa, Mas-
ter Card, or Discover). Payments may be made to the Cashier's Office by mail or in-person,
or if paying by credit card, by phone (312) 362-6744. (Please note: If paying by mail, the university
does not accept responsibility for delays in the U.S. Postal Service.)

Students whose accounts show a balance due after the date payment is required will be
assessed a $100 delinquency fee and prohibited from future registration and receiving transcripts.

WITHDRAWALS

Students who must withdraw either from a course or from the university may do so in per-
son at their home college by letter addressed to the college, or by using the university's tele-
phone registration system when appropriate. Withdrawals processed via NROL or in person
are effective the day on which they are made. Withdrawals processed as a result of a letter
are effective at the discretion of the college office. Simply ceasing to attend, or notifying
the instructor, or nonpayment of tuition, does not constitute a withdrawal of record, and will
result in academic as well as financial penalty.
To be eligible for a refund of tuition charges from a course withdrawal:

**For academic terms Fall through Spring**, a student must withdraw from the course by the end of the second full week of the term to receive a 100% refund of tuition charges. A refund of tuition charges will not be granted for course withdrawals after the second full week of the term.

**For Summer Sessions**, the student must withdraw by the end of the first full week of the session to be eligible for a 100% tuition refund. For withdrawals after the first full week of the session, tuition refunds will not be granted.

**For courses of four weeks or less but more than two weeks duration**, no refund will be granted after the first week of the term. **For workshops or courses of two weeks or less duration**, no refunds will be granted after the workshop or session begins.

A student required to withdraw from classes for failing to meet the scholastic requirements in the previous quarter's work will not be charged for the cancelled registration.

There is no refund for audited courses and, except for students dropped for poor scholarship, there is no refund for fees other than tuition.

**REFUNDS**

Should an account result in a credit balance which is refundable to the student: the student has the option of leaving the credit on the account to be applied toward future term expenses; or, apply for a refund through the Cashier's Office.

Application for a refund may be made to the Cashier's Office by a telephone request or in person. Refund checks will be made payable to the student and mailed to the address the student has on file with the University.

In the event a refund is requested at the time charges for a subsequent term are assessed, the credit will first be applied to the new term charges. Any credit then remaining on the account will be processed as a refund.

Loan checks, such as the Perkins and Stafford loans, must first be applied to the balance due on the student's account. If a credit balance is created after application of the loan check, the student may apply for a refund of the credit balance.

**Please Note:** Financial Aid awards (grants and scholarships) cannot be considered for refunds until the course add/refundable drop period is closed, that is, after the second full week of the term.

**GENERAL NOTES**

1. Registration cannot be accepted from a student with an unpaid balance from a prior term. Registration attempted under these circumstances is subject to cancellation.
2. Tuition and fees for courses audited are charged at the regular tuition rates. These must be paid at the time of registration and are not refundable.
3. Students receiving financial aid in the form of scholarships, tuition grants or loans—from Federal Programs, the State Government or DePaul University—must determine that the amount of aid received (total amount of awards divided by three quarters, normally) at least equals total tuition and fees for each term. In the event that such proration leaves a balance due from the student, this balance must be paid no later than the end of the first full week of the term in order to avoid a Delinquency Fee.

The Guaranteed Loan Program is administered by the Loan Commission and the student's bank. DePaul University assists the student in applying for these funds and does not delay the application process. The process may take as long as twelve weeks. Because the loan is a personal matter between the student and bank, the University does not recognize payment until the loan check is endorsed by the student and applied to his or her account. DELINQUENCY FEES APPLY.

4. If a student gives the University a check that is returned by the bank upon which it was drawn, marked "Not Sufficient Funds," "Payment Stopped," "Refer to Maker," or "Account Closed," a $25.00 charge will be assessed for each such occurrence. The University reserves the right to refuse acceptance of a personal check without prior notice.
5. Any foreign checks must be made payable in United States dollars or they will not be accepted by the University.
6. A student adding a class will receive a revised confirmation and billing within one week of the change. The additional charges are payable immediately.
Financial Assistance

Several types of financial aid are available to graduate students through programs administered by the University graduate school departments. These include DePaul University graduate assistantships as well as special awards funded by foundations and corporations. In addition, the DePaul Office of Financial Aid Office administers a variety of loan and work programs for which graduate students are eligible to apply.

LOANS

Stafford (Guaranteed Student) Loans. This program enables eligible students to borrow a loan at 8% from a bank, credit union, savings and loan association or other participating lenders who are willing to make the loan. The loan is guaranteed by a State or private non-profit agency.

All students must demonstrate need for this loan. Application forms, which must be completed by the student before the loan can be processed, are available in the Office of Financial Aid.

Graduate and professional students may borrow up to $7,500 per academic level. The aggregate limit for all graduate and professional students is $54,750, including undergraduate borrowing.

Lenders are authorized to charge student borrowers an origination fee of 5% of the principal of the loan. The guarantee agency may also charge an insurance premium. As a result, the actual loan disbursement will be less than the amount for which the loan was approved. However, repayment of the total approved amount is required. Please check with the Office of Financial Aid for application instructions.

Supplemental Loan for Students (SLS) Students who are not eligible to borrow under the loan program described, may be eligible to borrow under the Supplemental Loan for Students (SLS). If you are a student who does not receive support of any kind from your parents, and wish to consider this loan program, please contact the Office of Financial Aid to determine your eligibility. This loan carries a maximum interest rate of 12% and repayment begins 45 days after the loan is received. Students may borrow $4,000 from this program each year. Please check with the Office of Financial Aid for application instructions.

ALTERNATIVE FINANCING

DePaul University

The DePaul University Payment Plan (DePUPP) is a budget payment option which allows students to pay their tuition, fees, and room and board in monthly installments over a nine month period. This service is available to all DePaul University students. It is not a loan program, there are no interest or finance charges, or credit or financial needs requirements.

The student determines the budget amount for the plan. DePUPP requires a minimum budget amount of $750.00. The budgeted amount is the student’s total estimated annual charges (tuition, fees, room and board) less the total estimated financial aid awards (annual scholarships, grants, loans). Books and personal expenses are not covered by this budget. The total amount budgeted under the plan will be divided equally over the number of months in the plan at the time you apply.
The plan period is from July to March with payments due the 15th of each month. The student may pay by check, money order, or credit card (VISA, Master Card, or Discover).

Monthly billing statements will be sent to the student in advance of each payment due date. The statement will reflect charges and any payments or credits received since the last bill, the payment plan amount due by the 15th, and the current outstanding balance.

Students are urged to apply early. To participate in the nine month program, applications must be received by the Accounts Receivable Office no later than June 1. Applications made after this date must be accompanied by any past due payments to catch up to the regular schedule.

Applications received after September 1st but prior to October 1st will be processed for Winter/Spring term registrations only. Payments for the budgeted amount will be over a six month period with the first payment due October 15th, and the last payment due March 15th.

Students who wish to participate in DePUPP should complete and submit a plan application to the Accounts Receivable Office with the application fee by the appropriate due date. An annual non-refundable fee of $30.00 is required for each application.

The application is valid for one academic year only. For each year a student wishes to participate in this program a new application must be submitted.

More detailed information regarding this program and plan applications are available from the Financial Accounts Department and the Financial Aid Office.

Any questions regarding DePUPP should be directed to the Accounts Receivable Office (312) 362-8322, or you may write to: Accounts Receivable Office Room 1608. DePaul University, 25 E. Jackson Blvd., Chicago, IL 60604.

The DePaul Extension Plan for Employer Reimbursement (DePEPER) is an optional program for students receiving tuition reimbursement from their employers, and is administered through the Financial Accounts Office. This plan is designed to view coverage by an employer tuition reimbursement program as pending financial assistance. DePEPER allows the students covered by such an employer plan to receive an extension of their tuition payment date until Grade Reports are mailed, since many employer reimbursement plans are awarded according to grades received. The extended payment date will be two weeks from the final date grades are mailed.

The Financial Accounts Office will send a letter to the students in the program notifying them of the date the mailing of Report Cards was completed. Grades will be mailed from the Registrar's Office to the students only and not to employers. It is the responsibility of the students to provide a copy of their grades to their employer, if required by their employer's reimbursement plan.

To be eligible to participate in this program, students must: Complete and sign a 'DEPEPER Payment Agreement' form and submit it along with a letter from their employer verifying employment and coverage by their employer's tuition reimbursement plan to the Financial Accounts Office. Both documents are required for eligibility in this program and must be received by the Financial Accounts Office no later than the day tuition is due by the University. Please be advised, the University does not accept responsibility for delays in the U.S. Postal System; therefore, if mailing, please allow sufficient time for delivery. Students whose forms are received after the payment date will be assessed a delinquency fee on their accounts.

These documents are good for one term only. For each subsequent term students register and wish to participate in the program, a new Agreement Form must be signed and submitted to the Financial Accounts Office along with another letter from their employer. Agreement forms for this program are available from the Financial Accounts Office, the Financial Aid Department and the College Offices.

Students participating in this program are granted an extended payment date for their tuition, and are responsible for paying their tuition accounts in-full by that date whether or not the total amount has been received from their employer. Failure to pay by the extended date can subject the student to a delinquency fee and collection activity.
(Special seminars, workshops and courses which require pre-payment, and audits and zero credit courses are not covered by this program.)

Any questions regarding this program should be directed to the Financial Accounts Department (312) 362-8480.

Private Agencies

Other sources of loan funding are made available through private agencies for those who feel their needs have not been met sufficiently or those who are determined to be ineligible for other types of financial aid.

American Management Service (AMS) is a convenient monthly interest free payment program which allows students or parents to budget the annual cost of attendance including tuition and fees and on-campus room and board charges (if applicable). Undergraduate students or their parents contract to make eight monthly payments beginning in July for those enrolling in the Fall term.

In addition, there are long term loan programs available such as The Educational Credit Corporation (ECC), EXCEL, and Option IV.

For more information about these and other alternative financing programs, contact the Office of Financial Aid.

PART - TIME EMPLOYMENT

Student Service employment takes the form of on-campus work with the full salary paid by DePaul. Any student wishing to work on campus may be eligible under this program as long as they are not receiving other need based aid that would be affected by such earnings. If you would like to work on campus, check with the Human Resource Office to see if you are eligible.

HOW TO APPLY

For more information about financial aid programs, contact DePaul University’s Office of Financial Aid, 25 E. Jackson Blvd., Chicago, IL 60604. Telephone (312) 362-8091.

To be considered for 1992-93 federal financial aid programs, you may apply through April 30, 1993.

ASSISTANTSHIPS, AND FOUNDATION AWARDS

The following programs are administered by individual departments and programs. Application should be made to the chairperson of the department or program director for the program you plan to enter.

New applicants must have all their credentials (completed application form, admission fee, duplicate copies of transcripts and letters of recommendation) on file in the appropriate graduate office no later than the February 15 prior to Autumn Quarter admission.

 Announcement of Graduate Assistantships is generally made by June 1. Assistantships must be accepted or declined, in writing, by July 1.
University Assistantships

The University provides a number of teaching, research and administrative assistantships to applicants accepted as degree-seeking, fully admitted graduate students. Last year over 80 assistantships were awarded (both full and partial). The stipends are $5,000. Students may be offered a tuition waiver.

Recipients will be assigned by their program directors or departments to activities appropriate for a teaching, research or administrative assistant.

Traineeships

Mental Health Traineeships. Full-time, degree seeking students in clinical psychology are eligible to apply after they have completed at least three quarters of graduate work. As trainees, students are assigned to the University Mental Health Center on a half-time basis. Application should be made to the Director of the Mental Health Center.

Public Health Service Traineeships. A number of these are available. The Department of Nursing offers traineeships which provide monthly stipends and a tuition allowance for each quarter the student is registered as an admitted, full-time degree seeking student. Applicants should apply, in writing, directly to the chairperson of the Nursing Department.

Searle Foundation Awards. These awards are made to support students, identified as having high academic potential but not able to afford the expenses, who intend to major on the graduate level in one of the following fields of study: accountancy, biological sciences, business administration, chemistry, computer science, economics, finance, general business, management, marketing, and mathematical sciences. Each award, is supplemented with a full tuition waiver by the University. Recipients of the awards must be admitted full-time degree seeking students. They will be assigned by the department or the program director to such activities appropriate for their development in teaching, research, or administration.
## Autumn

<table>
<thead>
<tr>
<th>Month</th>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>August</td>
<td>28</td>
<td>Friday. Final date for submitting thesis or dissertation for October degree conferral.</td>
</tr>
<tr>
<td>September</td>
<td>4</td>
<td>Friday. Autumn tuition payment date.</td>
</tr>
<tr>
<td>September</td>
<td>7</td>
<td>Monday. Labor Day.</td>
</tr>
<tr>
<td>September</td>
<td>16</td>
<td>Wednesday. Autumn Quarter begins.</td>
</tr>
<tr>
<td>October</td>
<td>1</td>
<td>Thursday. University Degree Conferral.</td>
</tr>
<tr>
<td>October</td>
<td>2</td>
<td>Friday. Last day to withdraw with 100% tuition refund.</td>
</tr>
<tr>
<td>October</td>
<td>9</td>
<td>Wednesday. Last day to file for February Degree Conferral.</td>
</tr>
<tr>
<td>October</td>
<td>20-26</td>
<td>Tuesday-Monday. Mid-Term Week (optional).</td>
</tr>
<tr>
<td>November</td>
<td>6</td>
<td>Friday. Last day to withdraw from classes.</td>
</tr>
<tr>
<td>November</td>
<td>25-29</td>
<td>Wednesday Evening-Sunday. No classes Wednesday evening through Sunday. Thanksgiving Holiday.</td>
</tr>
<tr>
<td>November</td>
<td>30</td>
<td>Monday. Last day of Autumn Quarter evening classes.</td>
</tr>
<tr>
<td>December</td>
<td>1-7</td>
<td>Tuesday-Monday. Final Examinations for Autumn Quarter evening classes.</td>
</tr>
<tr>
<td>December</td>
<td>7</td>
<td>Monday. End of Autumn Quarter.</td>
</tr>
<tr>
<td>December</td>
<td>18</td>
<td>Friday. Winter tuition payment date.</td>
</tr>
</tbody>
</table>

## Winter

<table>
<thead>
<tr>
<th>Month</th>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>4</td>
<td>Monday. Winter Quarter classes begin.</td>
</tr>
<tr>
<td>January</td>
<td>10</td>
<td>Friday. Final date for submitting thesis or dissertation for February degree conferral.</td>
</tr>
<tr>
<td>January</td>
<td>15</td>
<td>Friday. Last day to withdrawal with 100% tuition refund.</td>
</tr>
<tr>
<td>January</td>
<td>29</td>
<td>Friday. Last day to file for June Commencement.</td>
</tr>
<tr>
<td>February</td>
<td>1</td>
<td>Monday. University Degree Conferral.</td>
</tr>
<tr>
<td>February</td>
<td>4-10</td>
<td>Thursday-Wednesday. Mid-Term Week (optional).</td>
</tr>
<tr>
<td>February</td>
<td>26</td>
<td>Friday. Last day to withdraw from classes.</td>
</tr>
<tr>
<td>March</td>
<td>12</td>
<td>Friday. Spring tuition payment date.</td>
</tr>
<tr>
<td>March</td>
<td>13</td>
<td>Saturday. Last day of Winter Quarter evening classes.</td>
</tr>
<tr>
<td>March</td>
<td>15-20</td>
<td>Monday-Saturday. Final Examinations for Winter Quarter classes.</td>
</tr>
<tr>
<td>March</td>
<td>20</td>
<td>Saturday. End of Winter Quarter.</td>
</tr>
<tr>
<td>Month</td>
<td>Date</td>
<td>Event</td>
</tr>
<tr>
<td>-------</td>
<td>--------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>March</td>
<td>27</td>
<td>Saturday. Spring Quarter classes begin.</td>
</tr>
<tr>
<td>April</td>
<td>9-11</td>
<td>Friday-Sunday. Easter. Holiday—No classes.</td>
</tr>
<tr>
<td>April</td>
<td>12</td>
<td>Monday. Last day to withdraw with 100% tuition refund.</td>
</tr>
<tr>
<td>April 28-May 4</td>
<td></td>
<td>Wednesday-Tuesday. Mid-Term week (optional).</td>
</tr>
<tr>
<td>May</td>
<td>14</td>
<td>Friday. Last day to withdraw from class. Final date for submitting thesis or dissertation for June Commencement.</td>
</tr>
<tr>
<td>June</td>
<td>7</td>
<td>Monday. Last day of Spring Quarter classes.</td>
</tr>
<tr>
<td>June</td>
<td>8-14</td>
<td>Tuesday-Monday. Final Examinations for Spring Quarter classes.</td>
</tr>
<tr>
<td>June</td>
<td>12-13</td>
<td>Saturday-Sunday. Commencement.</td>
</tr>
<tr>
<td>June</td>
<td>14</td>
<td>Monday. Spring Quarter ends.</td>
</tr>
<tr>
<td>Summer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>June</td>
<td>16</td>
<td>Wednesday. First Summer Session begins.</td>
</tr>
<tr>
<td>June</td>
<td>26</td>
<td>Friday. Last day to file for October Degree conferral.</td>
</tr>
<tr>
<td>July</td>
<td>5</td>
<td>Monday. Independence Day observed. Holiday—No classes.</td>
</tr>
<tr>
<td>July</td>
<td>21</td>
<td>Wednesday. First Summer Session ends.</td>
</tr>
<tr>
<td>July</td>
<td>22</td>
<td>Thursday. Second Summer Session begins.</td>
</tr>
<tr>
<td>August</td>
<td>25</td>
<td>Wednesday. Second Summer Session ends.</td>
</tr>
</tbody>
</table>
O'Hare Campus
3166 Des Plaines/River Road
(just north of Devon)

Oak Brook Campus
Suite 200—2 Westbrook Corporate Center
(just west of Wolf Road on Cermak/22nd Street)

Lincoln Park Campus
2323 N. Seminary, Chicago

Loop Campus
25 E. Jackson Blvd., Chicago
## Index

**COLLEGE OF LIBERAL ARTS AND SCIENCES 5-169**

<table>
<thead>
<tr>
<th>Actuarial Science 97</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration Listing 6</td>
</tr>
<tr>
<td>Admission, General</td>
</tr>
<tr>
<td>College of Liberal Arts and Sciences 10</td>
</tr>
<tr>
<td>Doctoral Program</td>
</tr>
<tr>
<td>Computer Science 9, 41</td>
</tr>
<tr>
<td>Philosophy 9, 110</td>
</tr>
<tr>
<td>Psychology 9, 127</td>
</tr>
<tr>
<td>Master's Programs 8</td>
</tr>
<tr>
<td>Applied Mathematics 95</td>
</tr>
<tr>
<td>Applied Physics 118</td>
</tr>
<tr>
<td>Artificial Intelligence 28</td>
</tr>
<tr>
<td>Biochemistry 20</td>
</tr>
<tr>
<td>Biology, Master of Science 15</td>
</tr>
<tr>
<td>Chemistry, Master of Science 19</td>
</tr>
<tr>
<td>Clinical Psychology 125, 128</td>
</tr>
<tr>
<td>Coating Technology 20</td>
</tr>
<tr>
<td>Cognitive Skills 113</td>
</tr>
<tr>
<td>Computer Science</td>
</tr>
<tr>
<td>Concentrations</td>
</tr>
<tr>
<td>Artificial Intelligence 28</td>
</tr>
<tr>
<td>Data Communications 29</td>
</tr>
<tr>
<td>Data Analysis 29</td>
</tr>
<tr>
<td>Personalized Concentration 30</td>
</tr>
<tr>
<td>Software Engineering 34</td>
</tr>
<tr>
<td>Standard Computer Science 28</td>
</tr>
<tr>
<td>Telecommunications 37</td>
</tr>
<tr>
<td>Visual Computing 30</td>
</tr>
<tr>
<td>Computer Science, Master's Programs</td>
</tr>
<tr>
<td>Information Systems 31</td>
</tr>
<tr>
<td>Management Information Systems 38</td>
</tr>
<tr>
<td>Standard Computer Science 25</td>
</tr>
<tr>
<td>Telecommunications Systems 35</td>
</tr>
<tr>
<td>Computer Science, Doctoral Program</td>
</tr>
<tr>
<td>Artificial Intelligence 42</td>
</tr>
<tr>
<td>Communications 42</td>
</tr>
<tr>
<td>Computer Information Systems 43</td>
</tr>
<tr>
<td>Data Analysis and Database 43</td>
</tr>
<tr>
<td>Operating Systems 43</td>
</tr>
<tr>
<td>Programming Languages 44</td>
</tr>
<tr>
<td>Software Engineering 44</td>
</tr>
<tr>
<td>Theoretical Computer Science 43</td>
</tr>
<tr>
<td>Visual Computing 44</td>
</tr>
<tr>
<td>Data Analysis 27</td>
</tr>
<tr>
<td>Data Communications 27</td>
</tr>
<tr>
<td>Degree-Seeking Students 11</td>
</tr>
<tr>
<td>Doctoral Candidacy Exam 10</td>
</tr>
<tr>
<td>Economics</td>
</tr>
<tr>
<td>Master of Arts 62</td>
</tr>
<tr>
<td>English</td>
</tr>
<tr>
<td>Master of Arts 70</td>
</tr>
<tr>
<td>Ethics and Values, Philosophy 116</td>
</tr>
<tr>
<td>Experimental Psychology 126, 129</td>
</tr>
<tr>
<td>Figures and Texts 113</td>
</tr>
<tr>
<td>Health, Education and Welfare 162</td>
</tr>
<tr>
<td>History</td>
</tr>
<tr>
<td>Master of Arts 75</td>
</tr>
<tr>
<td>History Sequence, Philosophy 113</td>
</tr>
<tr>
<td>Industrial Psychology 127, 130</td>
</tr>
<tr>
<td>Information Systems 31</td>
</tr>
<tr>
<td>Internships, Sociology 161</td>
</tr>
<tr>
<td>International Students 13</td>
</tr>
<tr>
<td>Interdisciplinary Studies 85</td>
</tr>
<tr>
<td>Law and Society 163</td>
</tr>
<tr>
<td>Liberal Studies</td>
</tr>
<tr>
<td>Master of Arts 87</td>
</tr>
<tr>
<td>Management Information Systems 38</td>
</tr>
<tr>
<td>Masters' Programs, General 8</td>
</tr>
<tr>
<td>Mathematics</td>
</tr>
<tr>
<td>Master of Arts 95</td>
</tr>
<tr>
<td>Master of Science, Applied 95</td>
</tr>
<tr>
<td>Mathematics Education 96</td>
</tr>
<tr>
<td>Minor Courses of Study</td>
</tr>
<tr>
<td>Chemistry 21</td>
</tr>
<tr>
<td>Economics 64</td>
</tr>
<tr>
<td>History 78</td>
</tr>
<tr>
<td>Nondegree-Seeking Students 11</td>
</tr>
<tr>
<td>Nurse Anesthesia 104</td>
</tr>
<tr>
<td>Nursing, Master of Science 102</td>
</tr>
<tr>
<td>Papers on Approval 8</td>
</tr>
<tr>
<td>Philosophy</td>
</tr>
<tr>
<td>Doctorate 110</td>
</tr>
<tr>
<td>Master of Arts 109</td>
</tr>
<tr>
<td>Psychology</td>
</tr>
<tr>
<td>Doctor of Philosophy 124</td>
</tr>
<tr>
<td>Master of Arts 124</td>
</tr>
<tr>
<td>Physics</td>
</tr>
<tr>
<td>Applied Physics 118</td>
</tr>
<tr>
<td>Teaching of Physics 119</td>
</tr>
<tr>
<td>Public Service Certificate Program 143</td>
</tr>
<tr>
<td>Master of Science 140</td>
</tr>
</tbody>
</table>

| Master of Science/Juris Doctor 143 |
| Quantitative Methods 98 |
| Rehabilitation Services Certificate Programs 153 |
| Master of Science 154 |
| Reclassification of Status 13 |
| Re-admission 13 |
| Sociology, Master of Arts 159 |
| Statistics and Probability 98 |
| Student At Large 11 |
| Telecommunications Systems, 35 |
| Theses, General Information 8 |
| Time Limitations, Graduate Programs 8, 10 |
| Traditional Philosophers 114 |
| Twentieth Century Philosophers 115 |
| Urban Studies 162 |
| Women's Studies 89 |
| Writing, Master of Arts 166 |

### SCHOOL OF EDUCATION 171-210

| Admission Requirements 175 |
| Concentrations |
| Administration and Supervision 181 |
| Agencies, Family Concerns and Higher Education 185 |
| Bilingual Multicultural Learning Disabilities 188 |
| Catholic School Leadership 181 |
| Elementary Teaching 176 |
| Physical Education 182 |
| Reading and Learning Disabilities 187 |
| Secondary Teaching 177 |
| Curriculum Development Program 178 |
| Educational Leadership Program 179 |
| Faculty 173 |
| Foundations of Education 189 |
| Human Development and Learning 186 |
| Human Services and Counseling 183 |
| Illinois Administrative Certificate 181 |
| Reading and Learning Center 187 |
| Reading and Learning Disabilities 187 |
| Teaching Certificate, Illinois Athletic Coaching 183 |
| Bilingual Education 188 |

279
Type 03: K-9 Teaching 175
Type 09: 6-12 Teaching 175
Type 10: Special (K-12) 175
Type 73: School Service 175
Type 75: General Supervisory 175
Type 75: General Administrative 175

SCHOOL OF MUSIC 213-228
Administration Listing 214
Admission Procedures 219
Applicant, Categories 219
Courses 224
Diagnostic Exams 220
Faculty 216
Master of Music 221
Programs of Study 219

SCHOOL FOR NEW LEARNING 231-238
Administration Listing 232
Admission Qualifications 234
Applied Research Methods 236
Assessment Colloquium 238
Assessment Workshop 235
Common Curriculum 236
Communications for Professionals 237
Ethics in the Professions 237
Faculty 235
Graduation Colloquium 238
Group Process 237
Leadership 237

Learning Plan Colloquium 236
Master Work 238
Models of Change 236
Professional Concentration 238
Valuing Human Differences 237

THEATER SCHOOL 241-254
Acting 250
Administration Listing 242
Admission Requirements 247
Auditions 247
Costume Design 251
Courses 252
Directing 250
Faculty 245
Facilities 244
Grades and Continuance Policy 249
Lighting Design 252
Master of Fine Arts 250
Residence Requirements 249
Programs of Study 247
Scenic Design 251

GRADUATE HANDBOOK 257-277
Academic Counseling 265
Accreditation 262
Administration, General 264
Alternative Financing 272
Assistantships 274
Board of Trustees 263
Calendar 276
Campus Locations 259
Career Planning 261
Commencement 268
Computer Services 260
Course Load 265
Course Numbering 265
Credits 265
DePeppe Plan 273
DePuy Plan 272
Dismissal 267
Educational Records, Access to 264
Fees 269
Financial Assistance 272
Grades 265
Graduate Courses 265
Graduation Procedures 268
Honor Societies 263
Housing 261
Jobs, Part Time 274
Libraries 259
Loans 272
Payment 270
Plagiarism 267
Probation 267
Registration 267
Regulations, Academic 264
Refunds 271
Residence Registration 268
Social Security Number 268
Student Responsibility 264
Traineeships 275
Tuition and Fees 269
Undergraduate Courses 265
Withdrawal 270

280
The Vincentian Character of DePaul University

DePaul, a Catholic university, takes its name from St. Vincent dePaul. The religious community founded by Vincent, commonly known as 'Vincentians,' opened the university and endowed it with a distinctive spirit: to foster in higher education a deep respect for the God-given dignity of all persons, especially the materially, culturally, and spiritually deprived; to instill in educated persons a dedication to the service of others. In each succeeding generation the women and men of DePaul have pursued learning in this spirit of Vincent dePaul.
NOTES