DePaul University Bulletin

college of liberal arts and sciences
graduate programs
1983-84

frank j. lewis center
25 east jackson boulevard
room 1603
chicago, illinois 60604
321-7870


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Publication Coordinators: Debra L. Nemeth and James Accurso
Photographer: Patrice Wigand
DePaul is... Service.

"Nobody will believe in us if we do not show love and compassion."

St. Vincent de Paul
...to the memory of
Rev. William T. Cortelyou, S.T.D.
teacher, administrator, Vincentian

DePaul University
(1960-1979)
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### Graduate Academic Offerings

#### College of 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
- Religious Studies
- Sociology
# 1983-84 academic calendar for graduate students

## Autumn Quarter

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 1</td>
<td>Th In-Person Registration for Autumn Quarter.</td>
</tr>
<tr>
<td>September 5</td>
<td>M Labor Day.</td>
</tr>
<tr>
<td>September 8</td>
<td>Th Late Registration for Autumn Quarter.</td>
</tr>
<tr>
<td>September 14</td>
<td>W Autumn Quarter Begins.</td>
</tr>
<tr>
<td>October 7</td>
<td>F Last Date to Apply for Auditor Status.</td>
</tr>
<tr>
<td>October 10</td>
<td>M St. Vincent dePaul Holiday.</td>
</tr>
<tr>
<td>October 17</td>
<td>M Final Date for Filing for February Convocation.</td>
</tr>
<tr>
<td>November 7</td>
<td>M Last Date to Withdraw from Class.</td>
</tr>
<tr>
<td>November 23-26</td>
<td>W-Sat Thanksgiving Holidays.</td>
</tr>
<tr>
<td>Nov. 28-Dec. 3</td>
<td>M-Sat Final Examinations for the Autumn Quarter.</td>
</tr>
<tr>
<td>December 3</td>
<td>Sat Autumn Quarter Ends.</td>
</tr>
</tbody>
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## Winter Quarter

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>December 6</td>
<td>T In-Person Registration for Winter Quarter.</td>
</tr>
<tr>
<td>December 15</td>
<td>Th Late Registration for Winter Quarter.</td>
</tr>
<tr>
<td>January 3</td>
<td>T Winter Quarter Begins.</td>
</tr>
<tr>
<td>January 6</td>
<td>F Final Date for Submitting completed Grade Changes and Examination Scores for February Convocation</td>
</tr>
<tr>
<td>January 23</td>
<td>M Final Date for Submitting Theses and Dissertations for February Convocation. Last Date to Apply for Auditor Status.</td>
</tr>
<tr>
<td>February 5</td>
<td>Sun Convocation.</td>
</tr>
<tr>
<td>February 10</td>
<td>F Final Date for Filing for June Convocation.</td>
</tr>
<tr>
<td>February 20</td>
<td>M Last Date to Withdraw from Class.</td>
</tr>
<tr>
<td>March 7-13</td>
<td>W-T Final Examinations for the Winter Quarter.</td>
</tr>
<tr>
<td>March 13</td>
<td>T Winter Quarter Ends.</td>
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<tr>
<td>Date</td>
<td>Day</td>
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<tr>
<td>March 15</td>
<td>Th</td>
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<tr>
<td>March 22</td>
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<tr>
<td>March 24</td>
<td>Sat</td>
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<tr>
<td>April 16</td>
<td>M</td>
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<tr>
<td>April 20-22</td>
<td>F-Sun</td>
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<tr>
<td>May 4</td>
<td>F</td>
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<tr>
<td>May 14</td>
<td>M</td>
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<tr>
<td>May 18</td>
<td>F</td>
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<tr>
<td>May 28</td>
<td>M</td>
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<tr>
<td>June 2-8</td>
<td>Sat-F</td>
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<tr>
<td>June 8</td>
<td>F</td>
</tr>
<tr>
<td>June 10</td>
<td>Sun</td>
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</table>
DePaul is... Leadership.

"It is a good thing to induce others to exercise charity. To do so, is to practice all virtues at once."

St. Vincent de Paul
administrative officers: university and liberal arts and sciences

president's letter
board of trustees
university
liberal arts and sciences
Dear Graduate Student,

A warm welcome to the Graduate School of 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 of the University 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 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 to career advancements, and the challenge of mind-expanding experiences. May your own studies be successful in all these ways.

Sincerely,

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Millard Robbins  Senior Vice President and Head of Service Products, The First National Bank of Chicago
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Rev. John R. Cortelyou, C.M.  Chancellor
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James R. Doyle  Vice President for Student Affairs
Kenneth A. McHugh  Treasurer
liberal arts and sciences

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Robert E. Brewer, Ph.D.
Therese M. Zimmerman, B.S.
David A. White, Ph.D.
William H. Hunt, M.A.

Dean
Associate Dean
Administrative Assistant/Office Manager
Administrative Assistant
Administrative Assistant

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Jurgis A. Anysetis, Ph.D.
Therese Baker, Ph.D.
Mary Jeremy Buckman, R.S.M., Ph.D.
William A. Caizaretta, Ph.D.
Sheldon Cotler, Ph.D.
Zuhair El Saffar, Ph.D.
Helmut Epp, Ph.D.
Albert Erlebacher, Ph.D.
Robert A. Griesbach, Ph.D.
Robert M. Heller, Ph.D.
Robert E. Brewer, Ph.D.
Rodger L. Jones, Ph.D.
Thomas N. Munson, S.T.L., Ph.D.
John E. Price, Ph.D. (acting)
Charles R. Strain, Ph.D.
F. Bruce Vawter, C.M, S.T.L., S.S.D.
William R. Waters, Ph.D.

Chemistry
Sociology
Nursing
Rehabilitation Services
Psychology
Physics
Computer Science
History
Biological Sciences
Public Services
Interdisciplinary Studies
Mathematical Sciences
Philosophy
English
Liberal Studies
Religious Studies
Economics
DePaul is... Vincentian.

"A heart really on fire and animated with the virtue of charity makes its ardour felt..."

St. Vincent de Paul
liberal arts and sciences—
general information

philosophy
accreditations
locations
libraries
services
philosophy

DePaul University, founded on Judaic-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 assigned 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 meet its need for educated individuals willing to be of service to others.

accreditations

DePaul University is accredited by:

- The North Central Association of Colleges and Secondary Schools
- The National Council for Accreditation of Teacher Education
- The National Association of Schools of Music
- The National League for Nursing
- The American Chemical Society
- The Association of American Law Schools
- The American Association of Collegiate Schools of Business

DePaul University is on the approved list of:

- The American Bar Association
- The American Psychological Association
- The State Approval Agency for Veterans Training
- The Illinois State Department of Education

DePaul University is a member of:

- The Council of Graduate Schools in the United States
locations

DePaul University has two major locations: the Lincoln Park Campus (LPC) and the Loop Campus (LC).

**Lincoln Park Campus**, located approximately four miles north of the Chicago Loop, on the near north side of the city, is bounded by Fullerton, Webster, Racine and Halsted Avenues. The campus is easily accessible by public transportation.

Located here are the academic buildings and libraries for the Liberal Arts and Sciences, Education, Music, and Goodman School of Drama; the residential, social and athletic buildings for students, the residences for clerical faculty, and the Church of St. Vincent de Paul.

**The Loop Campus** includes the Frank J. Lewis Center, the Cornerford J. O'Malley Place, the Administration Center and the 28 East Jackson Boulevard Building. These buildings are located at the intersection of Jackson Boulevard and Wabash Avenue in the heart of Chicago's Loop.

In addition to the College of Liberal Arts and Sciences (LAS) Loop Campus Graduate Office, the buildings contain the offices of the general administration, the College of Law, the College of Commerce, and the School for New Learning, as well as classrooms, library, theater, bookstore and chapel.
libraries

The DePaul University Libraries are divided into three different units: the Lincoln Park Campus Library, the Lewis Center Library, and the Law Library. The combined collection consists of over 450,000 volumes, 3,500 periodical titles as well as media such as filmstrips, cassettes, films, microforms, videotapes, and a music record library. Library handbooks, describing the various services and the physical arrangement of the libraries and explaining library rules and regulations, are available throughout the library system.

library computer system

The Libraries of DePaul University have their circulation records in computerized form and have 33 terminals in operation for an on-line circulation system. The Library Computer System allows DePaul's libraries at Lewis Center, Lincoln Park, and the Law Library to have on-line access to each other's collections. In addition, DePaul's students now have computer access to the library collections of eighteen other Illinois colleges and universities including the University of Illinois at both Urbana-Champaign and Chicago. The DePaul libraries belong to other cooperative groups including the Center for Research Libraries, the Chicago Academic Library Council, the Library of International Relations, and the Illinois Library Information Network, thus making vast resources in the Chicago and Midwest available to graduate students.

CRT terminals and printers hook up with the huge data base of OCLC, Inc. and subject computer searches from a number of data bakes (Indexing services in computerized form). A daily shuttle allows students to request a book from the other campus library with 24-hour delivery service of DePaul materials.

lewis center library

The Lewis Center Library's collection contains over 128,000 volumes and 922 periodical subscriptions. It supports many of the undergraduate and graduate programs of the University and has special strength in business holdings. The reference department on the second floor houses the current periodicals, abstracts and indexes, as well as the reference collection. Services provided by the reference staff include interlibrary loans, reference assistance and subject computer searches. The second floor level of the Lewis Center contains the Audio-Visual Department and the bound periodical collection. General circulating books, media center, and reserve materials are located on the third floor.
lincoln park library

The Lincoln Park Library, located in the Schmitt Academic Center (SAC), serves students in Liberal Arts and Sciences, Education, Music and Drama, as well as some graduate departments of the University. There are over 195,000 volumes presently in the collection. The periodicals collection includes over 1,400 current subscriptions. The Reference Department and periodical collection are located on the third floor of SAC. The Circulation Department and reserve materials are located on the fourth floor. The art slide collection, Education Resource Center, music record collection and other media collections are also located on the fourth floor. Other audio-visual services of the campus are located on the second floor.

special collections

The Department of Special Collections is located on the Lincoln Park Campus. The special collections include a facsimile of the Book of Kells; a Dickens Collection, including many editions of the works of Charles Dickens, memorabilia, posters, photographs and extra-illustrated volumes of Dickens, an extensive Napoleonic Collection, a Horace collection, a Sports Collection, the Verrona Williams Derr Collection of Afro-American Studies, and various rare books, including ten incunabula.
services
alumni association

Upon graduation, all students become members of the Alumni Association. The activities and services of the Association, varied and many, are designed to meet the professional and social needs of DePaul graduates. Communication with the Alumni Office on changes of address, marital status, etc., will assure continual notification on current university activities. For more information, contact the Alumni Relations Office, Lewis Center, 23 East Jackson Boulevard, Chicago, Illinois 60604 or call (312) 321-8587.

campus ministry

Campus Ministry is committed to the ongoing process of clarifying the God-given dignity and potentiality for the growth and development of the human person. Listening to your life experiences, hopes, dreams, fears, and questions, Campus Ministry can support you in your education at DePaul. Offices on the Lincoln Park Campus are located on the second floor of the Harold L. Stuart Center in Lincoln Park and at the Lewis Center in Room 1617. Daily and Sunday Masses are offered on both campuses. For information call 321-7985 or 321-7859.

career planning and placement

The University has two offices offering career planning and placement services to students and graduates. Those seeking counseling and/or assistance with part-time or full-time employment in business or government should apply to the Office of Career Planning and Placement in Room 1716 of the Lewis Center. Those who wish counseling and/or employment in teaching and other positions in education should apply to the Teacher Placement Office in Room 182 of the Schmitt Academic Center, Lincoln Park Campus.

To assist students in making career decisions, the following services are available: (1) career seminars, (2) career libraries (on both campuses) containing hundreds of publications describing careers, organizations, industries, and projections of the demand for college graduates by types of careers, (3) individual counseling, and (4) interpretation of vocational interest inventories.

To assist graduating students in obtaining career employment, the following services are available: (1) group workshops for guidance in job search techniques, (2) instruction on how to prepare personal resumes and letters of application, (3) "mock" interviews and instruction by university staff in preparation for actual interviews, (4) on-campus interviews with prospective employers; and (5) daily listing of job leads.
community mental health center

The DePaul University Community Mental Health Center is an agency funded by the Illinois Department of Mental Health and DePaul University. In addition to its services to the community and to DePaul students, it is also a training facility, providing practicum experience for graduate students, both in psychology and social work.

To qualify for service, a student must be currently enrolled in the University full-time, part-time or evening. Program focus is on behavioral, emotional or adjustment problems, rather than tutorial or learning difficulties. Confidentiality is a high priority and no information is released to any individual without client consent.

The Mental Health Center is located on the third floor of the Peter F. Byrne Hall, Lincoln Park Campus. For further information, call 321-7880, and ask for an intake worker or Frank A. Dinello, Ph.D., Director.

health insurance

Accident and health group insurance is offered on a voluntary basis to graduate students. The application forms may be secured from the offices of the Student Health Service on the Lincoln Park Campus or in the Lewis Center.

housing

The Off-Campus Housing Office provides a referral service of available apartments and rooms in the Lincoln Park area and other areas accessible to both campuses. The service maintains listings of apartments, rooms, work-exchanges and people seeking roommates. The service is strictly a referral and provides necessary information to allow students to contact landlords. The office is located in the lobby of Corcoran Hall, 910 W. Belden during the academic year (312-321-8620). During the summer the office is located at Clifton Hall, 2312 N. Clifton (312-321-8620/8621).

recreation

Alumni Hall houses a swimming pool and a gymnasium. Hours are scheduled for student and faculty use throughout the academic year. Monthly scheduling may be obtained through the Athletic Department.
DePaul is... Catholic.

"...It is easier to convince first with love and then with reason."

St. Vincent de Paul
graduate academic policies and procedures

degree programs: general policies
admission classifications
admission procedures
registration procedures
grades, credits, and course policies
graduation procedures
degree programs: general policies

master's programs

For the master's degree, all programs involve at least one or more of the following: 1) Credit Hours, 2) Degree Candidacy, 3) Language/Research Tool, 4) Thesis, 5) Paper on Approved Topic, 6) Integrating Critique or Examination, 7) Final Examination, and 8) 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, up to a maximum of eight quarter hours of registration in Thesis Research will be counted as credit toward the degree.

  Specific degree requirements are listed in the departmental and program sections of this Bulletin.

- degree candidacy
  Admission to candidacy implies the faculty is satisfied that the master's candidate is knowledgeable in his or her area of specialization, and is competent in the use of any required research tools.

- language/research tool
  A department or program director, with the approval of the Dean, can require language/research tool requirements as the student's program and research may demand.

- 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 having scholarly research possibilities.

  After degree candidacy has been granted and graduate research courses completed, the student must present the topic to the Graduate Committee of his or her department or program of specialization for approval. At the time of presentation, the student should have a clear concept of the nature of the thesis problem, the possibilities for making the investigation, and the technique to be used. The Graduate Committee may require the student to make some preliminary investigation to test the availability of sources.

  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 critique or examination**
  Procedures for such a critique or examination are set in advance in each specific case through consultation between the student and the department or program advisor.

- **Final examination**
  A student is eligible for the final examination only after all the other degree requirements have been completed. 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 Dean may grant permission for another examination upon the written recommendation of the department or program advisor of the student's major field. The examination may not be repeated until after the next convocation. No 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. 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 the Biological Sciences, Philosophy and Psychology. The degree shows that the recipient has demonstrated objectively his or her 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) Related Field of Study, 3) Academic Achievement, 4) Residence, 5) Language and Allied Requirements, 6) Examinations, 7) Admission to Candidacy, 8) Dissertation, and 9) 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.

• related field of study and language requirements
The program of graduate studies chosen for the doctoral degree will usually include study in related fields and language requirements as determined by the student in consultation with his or her Graduate Advisory Committee.

• academic achievement
A student will be advised to withdraw from the doctoral program when the Graduate Advisory Committee judges that he or she is not maintaining satisfactory progress toward the degree. Students are required to maintain at least a "B" average. A course grade below "C" is unsatisfactory and will not be counted toward completing degree requirements. However, the determination of satisfactory progress is not limited to grades and grade point average. It 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 departmental Graduate Advisory Committee, 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 minimum university registration (zero hour credit).
• examinations

Two examinations are required for all doctoral candidates: the Comprehensive (or Doctoral Candidacy) Examination, and the Final Examination on the dissertation. A department may, in addition, require an initial or preliminary examination.

Toward the end of the year of residency and with the language or allied requirements satisfied, the doctoral student may petition the department for the Comprehensive (or Doctoral Candidacy) Examination. The department will notify the Graduate Office of all approved petitions, and, as soon as the examinations have been graded will notify the College Office of the results. The examination may be written and/or oral. A student is not allowed to take it more than twice.

The Final Examination is on the doctoral dissertation. A doctoral candidate may not petition for his or her Final Examination prior to eight months after admission to candidacy. The chairperson of the Examination Committee will prepare a report of the results of the Final Examination, signed by all members, and send it to the College Office.

• 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 a) three consecutive quarters of full-time study beyond the master’s level; b) departmental language or allied requirements; c) Comprehensive (or Doctoral Candidacy) Examination.

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 this requirement invalidates the candidacy.

• dissertation

The doctoral candidate will prepare a doctoral 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.
The dissertation is the principal basis of the Final Examination. When the doctoral candidate files the petition for the Final Examination, the College Office is to be notified by the department chairperson, of the date, time, and place of the examination, and of the names of the members of the examining committee.

All doctoral dissertations are to be microfilmed. After the Final Examination has been passed, 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.

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.

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.

Degree-seeking status, full: The minimum requirements for this status are

- bachelor's degree conferred by an 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 LAS 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.

Degree-seeking status, conditional: The minimum requirements for this status are

- bachelor's degree conferred by an 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 LAS 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 an accredited institution,
- scholastic achievement in undergraduate studies indicating a capacity to pursue successfully graduate course work,
- approval by the Dean, and
- submission to the LAS Office of all required supporting credentials

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-seeking 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 LA&S Loop Office, Room 1603, DePaul University, 25 East Jackson, Chicago, Illinois, 60604 or by calling (312) 321-7870. Please indicate 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 LA&S Loop 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 Loop Office,
- a written recommendation for admission from the appropriate chairperson or program director, and
- written certification by the appropriate Undergraduate Office 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 LA&S 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, your admission will be cancelled.

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**international students**

Initially, all students educated outside the United States and its possessions should request general admission information and application forms from the University's

International Advisor
Admissions Office, First Floor
25 East Jackson Boulevard
Chicago, Illinois 60604
USA

After receiving general admission information, as an international student, your procedure for admission will involve 1) a completed application, 2) supporting credentials, 3) admission fee, 4) deadlines and, 5) letter of admission and/or Form I-20.

☐ **Application Form:** You can obtain a graduate application form either by mailing your request to the LA&S Loop Office, Room 1603, DePaul University, 25 East Jackson Boulevard, Chicago, Illinois 60604 or by calling (312) 321-7870. 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.

☐ **Supporting Credentials:** OFFICIAL TRANSCRIPTS, IN DUPLICATE, of 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 LA&S Loop Office, DePaul University.

English Proficiency is required for admission. Evidence of adequate financial support is required of applicants who request student visas, as scholarships are not available.

☐ **Admission Fee:** For your admission, a non-refundable fee of $20.00 (check or money order payable to DePaul University in U.S. dollars) must accompany your completed application form.
Deadlines: 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 6</td>
</tr>
<tr>
<td>Winter Quarter</td>
<td>October 3</td>
</tr>
<tr>
<td>Spring Quarter</td>
<td>January 2</td>
</tr>
<tr>
<td>Summer Quarter</td>
<td>March 6</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.

Letter of Admission and/or Form I-20: The Dean’s formal letter of admission and/or the issuance by the International Advisor of Form I-20 will occur after all admission requirements have been fulfilled.

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, you must file a readmission form with the LA&S Office. The form must be submitted at least four to six 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 any 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.

Student responsibility

As a graduate student you assume the responsibility to know and meet both the general and particular regulations, procedures, and deadlines set forth in this Bulletin.

Every effort has been made to provide you with final and accurate information. The University, however, does reserve the right to revise its bulletins and schedules of classes, and to change any policies, procedures, regulations, programs, requirements, courses or schedules of tuition and fees.

Access to Educational Records

The University follows the requirements of the Family Educational Rights and Privacy Act of 1974 which permits all students to review their educational records. The procedures for such review and the rights of students in this regard are set forth in detail in the annual publication of the Signpost.
registration procedures

general information

- **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 the Registrar's Office in person for an identification number assignment.

- **Academic Counseling**: Your graduate study differs significantly from your undergraduate study in the amount of individual attention faculty members will give to you. As a graduate student, you are expected to make appointments with your professors to ensure that you receive individual attention in an orderly and unhurried manner.

  If you are a **degree-seeking** graduate student, you must contact your faculty advisor prior to registration for signed approval. If you are a **non-degree-seeking** student or a **student-at-large**, you should contact either the LAS & Loop Office or the appropriate department or program director prior to registration. (Note: All graduate registration forms require the signature of an authorized member of the College of Liberal Arts and Sciences.)

- **Course Credit**: Credit is accumulated on the basis of quarter hours. Courses carry four quarter hour credits unless otherwise noted. For comparative purposes, 1 quarter hour equals 2/3 semester hour; 4 1/2 quarter hours equal 3 semester hours.

  Graduate credit is not granted for advanced undergraduate courses (300 level) if the recorded grade is below "B." No credit will be given for any graduate level courses (400 and over) with a grade below "C."

- **Course Revisions**: The University reserves the right to add or cancel courses, revise subject matter content, or make any other changes it deems necessary.
specific information

☐ Mail Registration. Schedules for current course offerings may be picked up in the LA&S offices on either campus. To eliminate waiting in registration lines and to avoid the possible closing of desired classes, the following students will be mailed pre-printed registration forms:

- graduate students enrolled during the previous quarter (This includes Spring Quarter students for the following Autumn Quarter)
- formally admitted new graduate students
- readmitted graduate students

Graduate students who have attended the University within one year prior to the quarter for which they wish to register, but who are not scheduled to receive pre-printed forms, may pick up mail registration materials at the LA&S Loop Office.

☐ In-Person Registration. Students who do not register by mail must register in-person on the date and at the location designated in the academic calendar.

☐ Registration in Courses in Other Colleges or Schools. Graduate students are able 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 course(s) will be taken. The registration forms, however, must always be returned directly to the LA&S Loop Office for the necessary approval to process the forms.

☐ 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.

☐ Course Load. A full course load consists of eight or more quarter hours per quarter. Graduate students are advised to undertake no more employment than is reasonably compatible with their proposed graduate studies in any given term. For students fully employed, registration for two courses in a term is the suggested maximum.
grades, credits, and course policies

grades
The key to the system of grading used in the College of Liberal Arts and Sciences is as follows:

faculty grading
A Exceptional achievement
B Superior achievement (minimum expected of graduate students in advanced undergraduate courses)
C Basic achievement
D Achievement unacceptable for graduate credit
F Failure
FX Failure because of excessive absences
IN All requirements for given course not completed at end of term
R Thesis and other continuing research not completed at end of the term

Note: A grade of "D" from another college or school of the University is not acceptable for graduate credit in the College of Liberal Arts and Sciences.

administrative grading
W Authorized withdrawal
FW Failure because of unauthorized withdrawal
AU Not-for-credit
M Final grade missing at time grades were processed

Note: Graduate students are expected to maintain a higher level of academic achievement than undergraduate students. A basic "C-" grade will be acceptable in no more than half of the graduate courses, those numbered 400 and above, completed in the major and the minor sequences.

credits
All courses carry four quarter hours of credit unless otherwise specified.

- Credit Transfer: No credit transfer in degree programs leading to the master’s or doctoral degree is allowed. The Dean, however, may authorize an exception to this policy when, in the judgment of the Dean, following consultation with the department or program director, the circumstances justify the exception.
course policies

- **Course Numbering:** Courses numbered 300 to 399 inclusive are advanced undergraduate courses normally taken in the junior and senior years. If listed in this Bulletin, they may be accepted for graduate credit within the limitations stipulated by the specific departmental chairpersons or program directors.

  Advanced undergraduate courses: students must have a grade of at least "B" if they are to receive graduate credit.

  Graduate courses (those numbered 400 and above). A "C" grade is acceptable in no more than half the graduate courses completed by the students in their major and minor sequences.

- **Course Attendance:** No one is permitted to attend a class for which he or she has not been properly registered. Should a student's name not appear on the class sheet, it is the student's responsibility, not the faculty member's, to resolve the problem. An instructor cannot enter a student's name on a class sheet nor give such a student a grade without first seeing the student's copy of a properly authorized enrollment change form.

  No registration is complete or valid until all financial arrangements have been completed. Any student owing money to the University from a previous term will not be registered until such an obligation has been paid.

graduation procedures

Procedures for graduation involve the graduation application, degree requirements, requirements for graduation with distinction, graduation fee, deadlines, Dean's confirmation letter, convocation ceremony and receipt of the diploma.

- **Application Form:** You can obtain a graduation application either by mailing your request to the LA&S Loop Office, Room 1603, DePaul University, 25 East Jackson Boulevard, Chicago, Illinois 60604, or by phoning (312) 321-7870.

- **Degree Requirements:** You must have successfully completed all of the general and specific degree requirements as listed in the appropriate departmental or program sections of the College of Liberal Arts and Sciences Bulletin under which admission was granted.

  Completed degree requirements can include the submitting of the dissertation or the thesis or the research paper, examination scores, and, if necessary, grade changes.

- **Graduation with distinction:** Graduation "with distinction" is conferred when a student a) receives the grade of "A" in at least 75% of the courses in the degree program and no grade lower than a "B" in the remainder of the degree courses, and b) passes the final oral or written examination "with distinction."
Graduation Fee: You will be billed for a graduation fee, payable to DePaul University.

You will automatically be billed a binding fee for the minimum number of thesis, dissertation or research paper copies required by your department or program director.

Deadlines: Specific dates are established for submission to the College Office of the completed graduation application and for completion of degree requirements.

Application for Graduation

February Convocation ........................................... October 17
June Convocation ............................................. February 10

Completed Grade Changes and Examination Scores

February Convocation ........................................... January 6
June Convocation ............................................. May 4

Deadline

Note: If you are applying for the June Convocation, you may register in the Spring Quarter for courses required in your degree program.

Completed Thesis and Dissertation

February Convocation ........................................... January 23
June Convocation ............................................. May 18

Deadline

Application for Graduation is made for a specific convocation. If you cancel or are ineligible to graduate, you must re-apply for the next convocation.

Dean's Letter: The College Office will notify you by letter of your confirmation for graduation and will provide you with details concerning the convocation.

Convocation: The Graduation ceremonies are held in February and June of each academic year.

To graduate “in absentia,” you must request permission in writing from the Dean.

Diploma: The convocation ceremonies are symbolic. The diploma is mailed shortly after the convocation ceremony.
DePaul is... Urban.

"Do not fear to undertake too much in doing the good that presents itself to you."

St. Vincent de Paul
graduate financial policies and procedures

 tuition and fees
 payment policies
 financial assistance
 employment opportunities
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 service and materials are for the academic year 1983-84 and are applicable only to graduate students.

graduate student tuition

Tuition for Liberal Arts and Sciences:

Courses in the 100-200 series, per quarter hour ............... $ 99.00 a
Courses in the 300-600 series, per quarter hour ............... $122.00

general fees

Fees are not refundable.

Graduate Application Fee ........................................ $ 20.00
Readmission Fee ................................................. $ 5.00
Registration Fee ................................................ $10.00
Late Registration Fee ............................................ $ 25.00 b
Deferred Examination Fee
  On Designated Dates ........................................... $ 10.00
  At Time Not Designated ....................................... $ 20.00
Graduation Fee-Master's Degree ................................ $25.00
Dissertation Fee-Doctoral Degree ............................... $40.00
Thesis Binding (Per Copy) ....................................... $10.00
Each Transcript of Credits Fee ................................ $ 2.00
Deferred Payment Plan Service Fee ............................. $20.00
Deferred Payment Delinquency Fee ....................... $ 30.00
Each Returned Check Service Fee .............................. $ 12.00 c

a. Applicable to Graduate Students only.
b. In addition to the regular registration fee.
c. 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," or "Account Closed," a $12.00 charge will be assessed for each such occurrence.

material fees

See individual course descriptions for specific material fees.
payment policies

general notes

- **Registration**: Registration will not be accepted from a student with an unpaid balance from a prior term. Registration attempted under these circumstances will be cancelled.

- **Audited Courses**: Audit courses receive no credit. Tuition and fees for courses audited are charged at the regular tuition rates, must be paid on time, and are not refundable. Students may not change from the status of credit student to that of an auditor, or vice versa, after the third week of class.

- **Students on Financial Aid**: 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 the total tuition and fees for each term. In the event such proration leaves a balance due from the student, this balance must be paid no later than the end of the first week of the term in order to avoid a Service Fee for Deferred Payment and/or Delinquency Fee.

- **Returned Check**: 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,” or “Account Closed,” a $12.00 charge will be assessed for each such occurrence.

- **Foreign Checks**: Foreign checks must be made payable in United States dollars or will not be accepted by the University.

- **Undergraduate Day Students**: Undergraduate day students combining undergraduate and graduate courses will pay the appropriate rate for each class.

deferred payment

All charges are due DePaul University at the time of registration, but no later than the first week of the term.

For students who are unable to meet this requirement, the University does offer, on payment of the $20.00 Service Fee, the following plan:

- payment of 1/2 must be received in the Cashier’s Office during the first week of the term.

- payment of 1/2 must be received in the Cashier’s Office prior to the end of the fourth week of the term.

- students with any unpaid balance at the beginning of the second week will be assessed the $20.00 Deferred Payment Service Fee.

- students with any unpaid balance at the beginning of the fifth week will be assessed the $30.00 Deferred Payment Delinquency Fee.
refunds for withdrawal

Simply ceasing to attend or notifying the instructor does not constitute a withdrawal of record and will result in academic as well as financial penalties.

Withdrawals must be processed in the College Office either in person or by mail. The withdrawal will be dated as of the end of the week in which the student signs the Enrollment Change Form or the date his or her letter of withdrawal is postmarked.

Charges for courses are based on the period of a student's enrollment beginning with the opening day of the Quarter until the student initiates an Enrollment Change Form to withdraw.

Upon processing the Enrollment Change Form the tuition charge for courses during the regular academic year will be reduced according to the following schedule where the Effective Date is:

<table>
<thead>
<tr>
<th>Period</th>
<th>Tuition Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior to the first full week</td>
<td>100%</td>
</tr>
<tr>
<td>of class</td>
<td></td>
</tr>
<tr>
<td>At the end of the first full</td>
<td>90%</td>
</tr>
<tr>
<td>week of classes</td>
<td></td>
</tr>
<tr>
<td>At the end of the second full</td>
<td>75%</td>
</tr>
<tr>
<td>week of classes</td>
<td></td>
</tr>
<tr>
<td>At the end of the third full</td>
<td>50%</td>
</tr>
<tr>
<td>week of classes</td>
<td></td>
</tr>
<tr>
<td>At the end of the fourth full</td>
<td>25%</td>
</tr>
<tr>
<td>week of classes</td>
<td></td>
</tr>
<tr>
<td>After the fourth full week</td>
<td>0%</td>
</tr>
<tr>
<td>of classes</td>
<td></td>
</tr>
</tbody>
</table>

During the summer sessions an accelerated proration of tuition charges will apply.

Fees are not refundable. All refunds are initiated by the Cashier's Office only upon receipt of an approved Enrollment Change Form and a specific request by the student within one calendar year of the opening of the quarter in which the credit accrued.

NOTE: Students receiving financial aid are advised to contact a Financial Aid Counselor to discuss the consequences of a withdrawal affecting academic progress and eligibility at DePaul University or any other school to which they may transfer.
financial assistance

DePaul University's policy is to make financial aid decisions without regard to race, creed, color, national origin, age or sex. Various types of financial aid are available to graduate students through awards funded by foundations or corporations, University graduate assistantships, traineeships, grants, and student loans.

general procedures

- Loans: Applicants for loan programs should contact the Office of Financial Aid, DePaul University, 25 East Jackson Boulevard, Chicago, Illinois 60604 either by mail or by phone (312)321-8526/8527.

- University Financial Aid: Applicants seeking any other form of financial aid should make preliminary application by letter to the chairperson of their proposed major department or the program director of their particular graduate study.

- Deadlines: New applicants for financial aid must have all their credentials (completed admission form, admission fee, duplicate copies of transcripts, and letters of recommendation - if required) in the LAS Graduate Office by February 15 prior to their Autumn Quarter admission. May 1 is the priority deadline for completing a financial aid file and thereby being considered for Federally funded loan or work study programs. Exact requirements involving what constitutes a complete file can be obtained from the Financial Aid Office by calling (312)321-8526/8527.

corporate and foundation awards

- Arthur J. Schmitt Awards: Fifteen awards for exceptionally outstanding candidates are allocated to the University's three doctorate-granting departments: biological sciences, philosophy, and psychology. Each award, up to a maximum of a $4,600 stipend is supplemented by the University with a full-time tuition waiver. Students receiving the awards are eligible upon the positive recommendation of the department to have the awards renewed. During the period of the award, the recipients must be admitted full-time degree seeking students. They will be assigned by the department to activities appropriate for teaching and/or research assistants.

- Howard V. Phalin Award: This award is a gift of $1,800 made by the Howard V. Phalin Foundation for Graduate Study for the support of an exceptionally outstanding graduate student. The University adds to this gift a $2,200 stipend. In addition, the University supplements the award with a full-time tuition waiver. During the period of the award, the recipient must be an admitted full-time degree seeking student. He or she will be assigned by the department to activities appropriate for teaching and/or research assistants.
• 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, up to a maximum of a $4,000 stipend, is supplemented with a full-time 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.

• IBM Corporation Awards. These awards are made to support two outstanding graduate students; one in computer science, the other in marketing. Each award consists of a $4,000 stipend and a tuition payment up to $1,000. Whenever necessary, the University supplements each award with a full-time tuition waiver. Recipients must be admitted as full-time, degree seeking students. They will be assigned by their respective departments to activities appropriate for a teaching and/or research assistant.

Announcement of graduate assistantships is normally made during the Spring Quarter of the previous academic year. The assistantships must be accepted or declined, in writing, by the end of that quarter.

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 60 assistantships were awarded (both full and partial). The stipends for such assistantships range from $3,200 to $3,500, and include a full-time tuition waiver.

Recipients will be assigned by their respective departments or program directors to activities appropriate for a teaching, research, or administrative assistant.

Application for an assistantship should be made, in writing, directly to the chairperson of the department or the program director in which the applicant plans his or her graduate study.

Announcement of graduate assistantships is normally made by during the Spring Quarter of the previous academic year. The assistantships must be accepted or declined, in writing, by the end of that quarter.

traineeships

• Mental Health Traineeships. Students in clinical psychology are eligible to apply for one of these traineeships. The traineeships are awarded to students who have completed at least three quarters of graduate work and are full-time degree seeking students. As trainees, the students are assigned to the University Mental Health Center on a half-time basis.

Application for a Mental Health Traineeship should be made to the Director of the Mental Health Center.
student loans

Applicants for all loan programs should contact by mail the University's Office of Financial Aid, Room 1730, 25 East Jackson Boulevard, Chicago, Illinois, 60604 or by phone at (312) 321-5526/5527.

National Direct Student Loan (NDSL)

The National Direct Student Loan program is for students enrolled at least half-time who need a loan to meet their educational expenses, and who meet the requirements in Section 2 of the Loan Act.

Repayment begins six months after graduation or withdrawal from school. Students may be allowed up to ten years to repay based on the amount they have borrowed. This repayment period may be extended an additional ten years for low-income borrowers with repayment related to the borrower's income. During the repayment period 5% interest will be charged on the unpaid balance of the loan principal.

Loan payments can be deferred when the borrower is: (a) a student; (b) a member serving in the Armed Forces, the Peace Corps, or VISTA; (c) an officer in the Commissioned Corps of the Public Health Service; (d) a volunteer for nonprofit organizations doing work similar to VISTA or Peace Corps, or a full-time volunteer for an organization which is exempt from taxation under Section 501(c)(3) of the Internal Revenue Code of 1954, or (e) an individual temporarily totally disabled or unable to secure employment by reason of care required by a spouse who is so disabled.

The Collection Office staff can provide information about loan cancellation provisions for borrowers who enter fields of teaching or who teach in designated schools. The Collections Office is located in Room 1057, 23 E. Jackson. The telephone number is 321-8444.

Guaranteed Student Loan (GSL)

The Guaranteed Student Loan program enables an eligible student to borrow directly from a bank, credit union, savings and loan association or other participating lender willing to make the loan. The loan is guaranteed by a State or a private nonprofit agency.

The maximum annual amount that can be borrowed is $5,000 for graduate and professional students. In some States the amount may be less. The interest rate is nine percent on the unpaid balance of the loan principal for first-time borrowers, and the Federal government will pay to the lender the total interest due prior to the beginning of the repayment period and during authorized deferment periods.

The aggregate loan maximum is $25,000 for undergraduate and graduate borrowing.
The loan must be repaid. Repayments begin six months after the student graduates or leaves school, and up to ten years may be allowed to repay the loan. The amount of the student's payments depends upon the size of the debt and the student's ability to pay, but, in most cases, payments of at least $150 a year are required unless the lender agrees to a lesser amount.

Payment on a loan may be deferred when the borrower is (a) pursuing a full-time course of study at an eligible institution; (b) serving in the Armed Forces, the Peace Corps or VISTA; (c) actively seeking but not finding full-time employment; (d) serving as an officer in the Commissioned Corps of the Public Health Service; (e) serving as a full-time volunteer for an organization exempt from taxation under Section 501 (c)(3) of the Internal Revenue Code of 1954, or serving as a volunteer for nonprofit organizations doing work similar to VISTA or Peace Corps; (f) serving an internship, the successful completion of which is required to begin professional practice or service; (g) being temporarily totally disabled or unable to secure employment by reason of the care required by a spouse who is so disabled; or (h) pursuing an approved course of study under a rehabilitation training program for disabled individuals.

Nursing Student Loans

Students pursuing a course of study, either full-time or part-time, in Nursing and who want to request financial assistance are required to borrow under this program rather than to request a National Direct Student Loan. Loans up to a maximum of $1,000 per year, depending on need and funds available, may be granted for any academic year. The maximum amount for all years of study is $1,000. Repayment of loans begins nine months after the borrower ceases to be a half-time student and is payable over a ten year period. The rate of interest is 3%.

Deferral of payments may be obtained for up to three years, for active duty in the armed forces or as a volunteer in the Peace Corps. Deferral may also be granted for a period of up to five years, for further study in nursing on at least a half-time basis.

Cancellation of parts of the loan, plus interest, may be obtained for each year of completed employment as a professional nurse in any public or non-profit private agency institution or organization (including neighborhood health centers), at the rate of 15% a year for the first three years and 20% for the next two years, up to a maximum of 85% of the loan, plus interest.

Nurses who enter practice in an officially approved area where there is a shortage of nurses may receive cancellations of all educational loans, plus interest, at the rate of 30% a year for the first two years and 25% for the third year, i.e., allows a cancellation maximum of 85%.

NOTE: Please be advised that changes are pending on many of these programs. You should contact the Financial Aid Office or your lender for the correct regulations for these programs.
employment opportunities

college work study program

Full-time and half-time graduate students who can demonstrate financial need may apply for part-time and/or summer employment under this program. The program is co-sponsored by the Federal Government and DePaul University. Students may work (mostly on campus) up to 20 hours weekly while attending classes, and up to 40 hours weekly when no classes are scheduled. The basic pay range is from $3.35 to $10.00 or more per hour for Graduate School students, depending upon their job classification. The student's earnings cannot exceed his or her need. Application should be made to the Office of Career Planning and Placement,
Room 1716
25 East Jackson Boulevard
Chicago, Illinois 60604
Telephone: (312) 321-7639.

part-time employment

The location of the University in a metropolitan area contributes greatly to the number and variety of opportunities for employment. Part-time and summer jobs, both on and off campus, are available for students through the services of the Office of Career Planning and Placement. Rates of pay for graduate students are from $3.35 to $5.00 or more per hour.

In addition, the University itself can offer positions to students. After students have registered for their classes, the Office of Career Planning and Placement will assist them in finding jobs. No proof of need is necessary to qualify for this service.
We are... DePaul.

"Charity unites us as members of one body; affability makes this union perfect."

St. Vincent de Paul
graduate academic offerings

college of 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
- religious studies
- sociology
BIO

biological sciences
(BIO)

Robert A. Griesbach, Ph.D.
Chairperson

faculty

professors
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Robert C. Thorntrees, Ph.D.
James E. Woods, Ph.D.
Northwestern University
Northwestern University
Stritch School of Medicine, Loyola University

associate professors
Daniel Gibbs, Ph.D.
Robert A. Griesbach, Ph.D.
Danute S. Juras, Ph.D.
Dolores J. McWhinnie, Ph.D.
Daniel G. Oldfield, Ph.D.
Stanford University
University of Chicago
Marquette University
University of Chicago

assistant professors
Robert A. Andersen, Ph.D.
University of Arkansas

emertii
Mary A. Murray, Ph.D.
Joseph E. Semrad, Ph.D.
University of Chicago
Northwestern University

purposes

The Department offers programs of advanced study which will enable qualified students to earn degrees at the master's and doctoral levels. More specifically the Department provides

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

• a series of lecture, laboratory, and seminar courses appropriate to the specific degree programs offered,

• opportunities for research leading to the thesis or dissertation in accord with the student’s degree program and the faculty’s research interests, and
• continuing opportunities for interaction between faculty and students through formal and informal learning situations in order to further promote the existence of a scholarly environment.

The learning objectives of the Department are

• acquisition and understanding of knowledge to the extent expected at the master's and doctoral levels,

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

• development of laboratory skills and methodologies at a level that enables the student to independently acquire new knowledge relating to life and the principles of 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 professional biologists.

degree programs

master of science

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 scope and understanding of the life sciences,

• plan additional education at the master's level for increased proficiency in teaching and/or research, and

• 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.

doctor of philosophy

The doctoral program is intended for mature persons who have clearly defined objectives, and who possess the background necessary for a concentrated program of research and independent study. Examples of competencies required of candidates for the Ph.D. degree are

• critical evaluation of scientific literature,

• originality in research, and

• competence in written and oral presentation of data and their interpretation.

The doctoral program provides counseling, instruction, seminars and research to aid the students in achieving high scholarship in broad aspects of biology and in-depth understanding in regulatory biology, and, to engage them effectively in a full professional life of independent research and continued learning.
master of science: biological sciences

admission requirements
For full admission, students must have the following:
• Bachelor's degree; major in biological sciences or its equivalent
• Chemistry: minimum two academic years, including one year of organic chemistry
• General Physics: one year
• Calculus: one course
• Prerequisite course work: completion 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 2.5 on a scale of 4

degree requirements
• Courses: a minimum of 56 quarter hours of graduate credit, including ten graduate core courses (40 hrs.), BIO 400 Discussion of Selected Topics in Biology, BIO 495 Practicum in Teaching Biology, one four-hour Biology or Biochemistry elective, and 8 hours of Research, of which at least four hours must be BIO 498 Research for Master's Thesis. Note: Students are required to have at least one course in each of the six core areas of study.

master of science core areas of study
• Immunology (BIO 425, BIO 479)
• Cell Biology (BIO 450, BIO 468)
• Aquatic Biology/Ecology (BIO 416, BIO 417)
• Neurobiology (BIO 440, BIO 472)
• Endocrinology (BIO 447, BIO 486)
• Mineral Metabolism (BIO 410, BIO 412)
• Advancement to Candidacy: based upon the results of a colloquium between the departmental faculty and the student taken near the end of the second quarter of the student’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
• Departmental Seminar: presentation of the M.S. thesis research
• Final examination: contents covering all areas of graduate study, including coursework, basic biological concepts and thesis
doctor of philosophy of biological sciences

admission requirements

For full admission, students must have the following:

- Master’s degree, major in biological sciences or its equivalent
- General Physics, one year
- Calculus, one year
- Chemistry, two years, including one year in organic chemistry
- Transcript of credits
- Graduate Record Examination Scores
- Three letters of recommendation from science professors, preferably biology

degree requirements

- Courses: minimum of 108 quarter hours of study beyond the baccalaureate degree (maximum of 48 quarter hours of a master’s program applicable toward doctoral degree requirements)
- Selection of a Graduate Concentration: concentration developed in consultation with the Departmental Graduate Committee within the first quarter of admission
- Preliminary Comprehensive Examination: satisfactory completion of examination within the first year of the Ph.D. program
- Written Ph.D. Dissertation Research Proposal: approval by the Departmental Graduate Committee
- Written and Oral Doctoral Candidacy Examination: successful completion of the examination, with the consequent advancement to candidacy for the degree, one year prior to the expected date of convocation
- Advancement to Doctoral Candidacy: approval by the Dean based upon the results of a colloquium between the student and the departmental faculty
- Modern Language: evidence of at least a two-year level of competence
- Dissertation: results of an original investigation acceptable for publication
- Formal (Public) Seminar
- Final Oral Examination: contents of the dissertation and related information
- 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. Students in the doctoral concentrations are strongly urged to study one academic term at a biological station or research institute to be selected in consultation with the Graduate Advisory Committee.
courses

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

advanced undergraduate courses

300 Psychobiology and Behavior. Fundamental concepts of the structure and function of the nervous and endocrine systems, and their interplay with genetics, nutrition and the external environment in the expression of overt behavior. Lecture-Laboratory (4). Laboratory Fee $20.00.


310 Vertebrate Physiology. Organ system physiology of vertebrates. Lecture-Laboratory (4). Laboratory Fee $20.00.

311 Histology. Microscopic study of vertebrate tissues and organs. Lecture-Laboratory (4). Laboratory Fee $20.00.

315 Ecology. Study of organismal interactions and responses of individuals, populations and natural communities to their external environment. Lecture only (4) or Lecture-Laboratory (4). Laboratory Fee $20.00. Not offered in 1983/84.

318 Insect Physiology and Development. Introduction to the physiology and development of insects, including embryogenesis, hormonal control of molting, metamorphosis and reproduction. Lecture only (4) or Lecture-Laboratory (4). Laboratory Fee $20.00.

330 Developmental Biology. Developmental phenomena of animals including gametogenesis, fertilization, cleavage, organogenesis, metamorphosis and regeneration. Lecture-Laboratory (4). Laboratory Fee $20.00.

335 Concepts in Evolution. Study of continuity, change and diversity in the animal kingdom. Lecture Only (4).

graduate courses

400 Discussions of Selected Topics in Biology. (2).

401 Independent Study. Experimental and/or library study of selected topics in the life sciences.

410 Hormonal Regulation of Mineral Metabolism I. Analysis of structure and biochemistry, and cell function in hard tissues of invertebrate and vertebrate organisms (4). Not offered in 1983/84.

412 Hormonal Regulation of Mineral Metabolism II. (Prerequisite: Biology 410) Analysis of the regulation of structure, function and biochemistry of vertebrate hard tissues by vitamins and hormones. Lecture-Laboratory (4).

416 Phycology. Introduction to algae with emphasis on freshwater forms: taxonomy, morphology, ultrastructure, physiology, life histories. Lecture-Laboratory (4). Laboratory Fee $20.00.
Aquatic Biology. The study of physical, chemical and biological phenomena in freshwater environments. Lecture-Laboratory (4). Laboratory Fee $20.00.


Cell Cycle Physiology. Laboratory (2). Laboratory Fee $25.00. Not offered in 1983/84.


Experimental Immunology. Laboratory (2). Laboratory Fee $25.00. Not offered in 1983/84.

Neurobiology. Introduction to the structure and function of vertebrate and invertebrate nervous systems. Lecture (4). Not offered in 1983/84.

Physiology of the Endocrine System. Laboratory (2). Laboratory Fee $25.00. Not offered in 1983/84.


Physiology of the Endocrine System. Analysis of the regulatory role of hormones in vertebrates. Lecture (3). Not offered in 1983/84.


Physiology of Reproduction. Laboratory (2). Laboratory Fee $25.00. Not offered in 1983/84.

Selected Aspects of Fetal and Adult Endocrinology. Lecture/discussion on topics dealing with current views regarding the development and function of the hypothalamic-thyroid and gonadal axes in vertebrate organisms. Lecture-Laboratory (4). Laboratory Fee $25.00. Not offered in 1983/84.

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


Cell Physiology and Toxicology. Analysis of organelle enzyme systems, unit structures, and physiology relating to cellular metabolism, transport, and energy conversion processes in the presence of toxic substances. Lecture-Laboratory (4). Laboratory Fee $20.00.


Immunobiology. Basic factors governing immune phenomena and antigen-antibody reactions. Lecture-Laboratory (4). Laboratory Fee $20.00.


Special Course for Graduate Laboratory Teaching Assistants

495 Practicum in Teaching Biology. Discussion of such topics as laboratory safety, handling of radioactive chemicals, instrument and equipment use as well as care, feeding, etc. of living organisms. (2).

Research

496 Research. (Prerequisite: Approval of the Department) 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.

498 Research for Master's Thesis. (Prerequisite: Approval of the Department) 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.

508 Research for Doctoral Dissertation. (Prerequisite: Approval of the Ph.D. Dissertation Proposal) Original investigation of a specific biological research problem leading to the dissertation. Autumn, Winter, Spring, Summer. Laboratory (2,4, or 6). Laboratory Fee $15.00 per credit hour.

509 Doctoral Candidate Research. (Prerequisite: Approval of the Department Graduate Committee and the Dean of the College) Open to doctoral candidates who have fulfilled language and residency requirements for the degree and who are devoting full time to dissertation research and study. Autumn, Winter, Spring, Summer. (No credit, tuition equal to one 4-hour course). Laboratory (0). Laboratory Fee $50.00.

701 Resident Candidacy Continuation. (Prerequisite: Admission to candidacy) 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.

702 Non-Resident Candidacy Continuation. (Prerequisite: Admission to candidacy) 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.
chemistry
(CHE)

faculty

professors
Avrom A. Blumberg, Ph.D.
Fred W. Brettel, III, Ph.D.
Sanat K. Dhar, Ph.D.
Edwin F. Meyer, Ph.D.
Thomas J. Murphy, Ph.D.
William R. Pasterczyk, Ph.D.
Franklin S. Prout, Ph.D.

Yale University
University of Cincinnati
Wayne State University
Northwestern University
Iowa State University
Loyola University, Stritch School of Medicine
Vanderbilt University

associate professors
Jurgis A. Anyšas, Ph.D.
Sara Steck Melford, Ph.D.
Robert L. Novak, Ph.D.

Illinois Institute of Technology
Northwestern University
University of Delaware

purpose
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.
master of science: chemistry

admission requirements
For full admission, students must have the following:

- Bachelor's degree: Chemistry
- 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
- 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 476  Polymer Synthesis or Polymer Science
  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

- 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 430 or 476  Polymer Synthesis or Polymer Science
  CHE 422, 424  Advanced Inorganic Chemistry I, II
  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, 343  Experimental Biochemistry I, II

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
twelve 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.

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 133) Offered: Autumn.
211  Physical Chemistry II. (Prerequisite: CHE 196) Offered: Winter.
215  Physical Chemistry III. (Prerequisite: CHE 211) Offered: Spring.
260  Analytical Equilibrium Chemistry. (Prerequisite: CHE 147 or 127 or consent of instructor) Offered: Autumn.
261  Instrumental Analysis. (Prerequisite: CHE 215) Offered: Winter.
265  Air Chemistry. (Prerequisite: CHE 127 or 147) Offered: Spring of even-numbered years.
267  Aqueous 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 Lincoln
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: Autumn.
321  Intermediate Inorganic Chemistry. (Prerequisite: CHE 125 or 175,
    210 or consent; and 312 strongly recommended) Offered: Autumn.
325  Solid Waste Chemistry. (Prerequisite: CHE 196) 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 (2).
CHE

342 Biochemistry II. (Prerequisite: CHE 340) Offered: Winter.
343 Experimental Biochemistry II. (Prerequisite: CHE 341, 261 or consent) Offered: Winter (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, 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 or physical chemistry. This course may be repeated for credit if topic is different. (2)
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: Spring of even-numbered years.
430 Polymer Synthesis. (Prerequisite: CHE 125 or 175) Offered: Spring of odd-numbered years.
440 Biochemistry III. (Prerequisite: CHE 342) Offered: Spring.
450 Advanced Organic Chemistry I. (Prerequisites: CHE 175 and 210) Offered: Autumn.
452 Advanced Organic Chemistry II. (Prerequisite: CHE 450) Offered: Winter.
470 Advanced Physical Chemistry I. (Prerequisite: CHE 215. Offered: Autumn of even-numbered years.
472 Advanced Physical Chemistry II. (Prerequisite: CHE 215. Offered: Winter of odd-numbered years.
476 Polymer Science. (Prerequisite: CHE 215 or consent of instructor) Offered: Spring of even-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 spectrometry, electrochemical analysis, principles of chromatography, etc. This course may be repeated if the topics are different.
490 Statistical Analysis of Data. (Prerequisite: CHE 147) 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.
computer science
(CSC)

director of graduate studies
George J. KnafI, Ph.D.

faculty

professors
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Martin G. Kalin, Ph.D.
University of Oregon
Northwestern University

associate professors
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Helmut Epp, Ph.D.
Robert Fisher, Ph.D.
Gerald Gordon, Ph.D.
George J. KnafI, Ph.D.
Glenn Lancaster, Ph.D.
Wayne State University
Northwestern University
Harvard University
University of California, Berkeley
Northwestern University
University of California, Irvine

assistant professors
Kam-Chan Lo, Ph.D.
David Miller, Ph.D.
University of Nice
University of Chicago

adjunct professor
Ronald Benjamin, M.S.
DePaul University

instructors
Henry Harr, M.S.
Thomas Sheridan, M.S.
DePaul University
DePaul University

lecturers
Richard Courthous, M.S.
Richard Ezap, M.S.
Lynne Kershaw, B.S.
Moshe Lion, Ph.D.
Bertha Mount, Ph.D.
Girish Parikh, B.E.
Edward Wegrzyn, J.D.
Weizmann Institute
DePaul University
Vassar College
Northwestern University
Northwestern University
Gujarat University
Loyola University
purposethe programs of the Department of Computer Science and Information Systems provide students with the professional training required of the highly competent and broadly skilled practitioners in the areas of artificial intelligence computer science, data communications, information systems and scientific/statistical computing. These programs also provide the basis of further academic study. Students may also pursue a non-degree program of Professional Development.

master of science: computer science

The masters degree program consists of three phases:

- Admission phase
- Qualification phase
- Advanced phase

The admission phase guarantees that all students have a minimum common background. The Qualification Phase, which varies with concentration, prepares students for their chosen concentration. In the Advanced Phase, students specialize in their concentration area. The concentration requirements are tailored to meet individual student needs. The student must pass an examination to move from one phase to another. All students must pass these examinations.

admission phase

All applicants who satisfy general graduate college admission requirements, initially receive conditional admittance and may then pursue either a degree program or the Professional Development 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 passing score on the departmental entrance examination
- A course in assembly language or equivalent work experience

For admission as a Professional Development student, students must have the following:

- Bachelor's Degree
- Approval by a departmental counselor of a program of Professional Development. The student must have a background equivalent to the prerequisites before enrolling in a Professional Development course.

A Professional Development student, who completes the Admission Phase, may be fully admitted to the degree program and may apply Professional Development courses taken towards the degree requirements.

Entrance Examination

The departmental Entrance Examination is administered to insure a common background of knowledge. A passing score on this examination is required to move from the Admission Phase to the Qualification Phase. The examination covers the following topics:
Programming skills in two languages

A knowledge of two languages is required. At least one must be chosen from ADA, PASCAL or PL/I. The other language must be selected from ADA, C, COBOL, FORTRAN 77, PASCAL or PL/I. (Note that a reading knowledge of PL/I will be assumed in many graduate courses).

Suggested courses are:
CSC 203 COBOL Programming
CSC 205 FORTRAN
CSC 210 PL/I Programming
CSC 220 Programming in PASCAL
CSC 225 Programming in C
CSC 230 Programming in ADA

Principles of Computer Science

Suggested courses are either the undergraduate two quarter sequence:
CSC 310-311 Computer Science I-II

or a one quarter equivalent restricted to graduate students:
CSC 410 Principles of Computer Science

File structures and File processing

Suggested courses are either:
CSC 204 Advanced Topics in COBOL
(prerequisites CSC 203)

or
CSC 342 Introduction to File Processing
(uses PL/I and has a prerequisite of CSC 311 or CSC 410)

Discrete Mathematics

A suggested course is
MAT 140 Discrete Mathematics

A detailed study guide for the Entrance Examination and further information is available from the department (phone (312) 321-7974). The Entrance examination may be taken, at most, two times. Failure on the second attempt will result in dismissal from the program. Students must maintain a 2.50 GPA (out of a maximum of 4.00) to be eligible to take the Entrance Examination.

Assembly Language

Either documented work experience in an assembly language or documented course work in assembly language programming will be accepted as fulfilling this requirement.

A suggested course is
CSC 312 Assembly Language and Machine Organization

Assembly language programming is not included on the Entrance Examination.
degree requirements

The requirements for the Qualification and Advanced Phases are presented below in two sections - one for the Computer Science Concentration and one for the Information Systems concentration.

qualification phase

Successful completion of the Qualification Phase consists of

- Completion of Qualification Phase courses
  These depend on the student's chosen concentration in Computer Science. See below for details.

- Passing the Qualification Examination
  The examination covers the subject matter of the Qualification Phase courses required for the student's chosen concentration. Students take this examination as soon as they successfully complete their Qualification Phase course requirements. Students are allowed, at most, two attempts at this examination. If they fail it a second time, they will be dismissed. Consult the Graduate Brochure (available from the department; call (312) 321-7974) for further details on this examination.

Deadline: The student must submit a written application the quarter before taking the Qualification Phase examination.

- Satisfying the Quantitative Methods requirements
  The Quantitative Methods requirements are met by having taken courses equivalent to the following:
  Calculus (equivalent to MAT 150-151)
  Statistics (equivalent to CSC 323)
  Waiver of some of the qualification courses is possible in individual cases but requires the approval of the student's advisor.

Qualification Phase Course Requirements

Students must complete the Qualification Phase courses required for their concentration. The course requirements by concentration are:

Artificial Intelligence Concentration
CSC 442 Data Structures
CSC 445 Computer Architecture
CSC 446 Computer Operating Systems
CSC 480 Artificial Intelligence
CSC 491 Design and Analysis of Algorithms

Standard Computer Science Concentration
CSC 420 Discrete Structures
CSC 442 Data Structures
CSC 445 Computer Architecture
CSC 446 Computer Operating Systems
CSC 491 Design and Analysis of Algorithms

Data Communications Concentration
CSC 442 Data Structures
CSC 445 Computer Architecture
CSC 446 Computer Operating Systems
advanced phase

These requirements pertain only to the Computer Science concentrations. See below for the Information Systems concentration requirements.

Students must fulfill the course requirements of their concentration. Consult the Advanced Phase Courses section below for details. Waiver of some of these courses is possible in individual cases but requires the approval of the student's advisor.

Conditionally admitted students will not receive credit for any Advanced Phase courses completed prior to passing the Admission Phase. Fully admitted students will receive credit for at most three courses completed prior to passing the Qualification Phase examination.

Minimal Course Requirement

Students must complete at least 12 courses (48 hours) beyond the Admission Phase and after receiving conditional admission. This only affects students who receive waiver of Qualification or Advanced Phase courses. Courses taken to fulfill this requirement are subject to the same restrictions as elective Advanced Phase courses.

Advanced Phase Course Requirements

Students must complete the Advanced Phase courses required for their chosen concentration.

The course requirements by concentration are:

Artificial Intelligence Concentration

CSC 580 Artificial Intelligence Programming
CSC 698 Master's Project/Thesis

Three of the following:
CSC 481 Pattern Recognition and Machine Perception
CSC 581 Knowledge-based Systems
CSC 582 Robotics
CSC 583 Natural Language Understanding
CSC 584 Computer Vision

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

Standard Computer Science Concentration

Four of the following courses including at least one 500 level course:
CSC 432 Computer and Information Systems Modeling
CSC 447 Concepts of Programming Languages
CSC 448 Compiler Design
CSC 480 Artificial Intelligence
CSC 490 Theory of Computation
CSC 492 Advanced Topic in Algorithms
CSC 493 Formal Grammars and Automata Theory
CSC 545 Advanced Computer Organization
CSC 546 Operating Systems Design
CSC 548 Advanced Compiler Design
CSC 698 Master's Project 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 468 Computer Networks
CSC 489 Queueing Theory with Computer Applications
CSC 550 On-line Systems and Telecommunications
CSC 561 Distributed Processing
CSC 562 Computer Communications Network Design and Analysis
CSC 563 Protocols and Techniques for Data Networks
CSC 698 Master's Project/Thesis

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

Scientific/Statistical Computing Concentration

Four of the following:
CSC 424 Advanced Data Analysis
CSC 432 Computer and Information Systems Modeling
CSC 445 Computer Architecture
CSC 469 Computer Graphics
CSC 481 Pattern Recognition and Machine Perception
CSC 485 Numerical Analysis
CSC 487 Operations Research I, Linear Programming
CSC 489 Queueing Theory with Computer Applications
CSC 498 Digital Signal Processing
CSC 586 Computational Methods in Data Analysis
CSC 698 Master's Project/Thesis
ECO 512 Applied Time Series and Forecasting
MAT 454 Multivariate Statistics
MAT 457 Nonparametric Statistics

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

Personalized Concentration.

Students with superior results on the Qualification 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 must be numbered in the 400-599 range. At most, two of them may be courses taken from other departments at DePaul or at some other institution. Students must obtain written approval of the Director of Graduate Studies before taking courses from other departments at DePaul and must justify the inclusion of those courses in their program. The following courses are exempted from this requirement and may be taken without prior approval:

SOC 415 Information Systems and Society
SOC 467 Organizations
PSY 443 Psychology of Human Performance

Credit will be given for courses taken at other institutions only if they are approved by both the Associate Dean of the College of Liberal Arts and Sciences for the Loop Campus (consult the appropriate section on the transfer credit policies of the College) and the Director of Graduate Studies.

Courses suggested for the Admission Phase never count for electives credit. Courses required for the Qualification 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 Entrance Examination. Fully admitted students will receive elective credit for courses taken before passing the Qualification Phase 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 will be 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 2.75 (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 quarter or else they will change to grades of “F” which will not be changed later.
information systems concentration

qualification phase

Successful completion of the Qualification Phase consists of:

- Completion of Qualification Phase examination

The examination covers the subject matter of the Qualification Phase courses required for the Information Systems concentration. Students take this examination as soon as they successfully complete their Qualification Phase course requirements. Students are allowed at most two attempts at this examination. If they fail it a second time, they will be dismissed. Consult the Graduate Brochure (available from the department (call (312) 321-7974) for further details on this examination.

Deadline: The student must submit a written application the quarter before taking the Qualification Phase examination.

- Satisfying the Quantitative Methods requirements

The Quantitative Methods requirements are met by having taken courses equivalent to the following:

  - Calculus (equivalent to BMS 126)
  - Statistics (equivalent to CSC 323)

Waiver of some of the qualification courses is possible in individual cases but requires the approval of the student's advisor.

Qualification Phase Course Requirements

Students complete the following Qualification Phase courses:

- CSC 203-204 COBOL Programming and Advanced Topics in COBOL
- CSC 442 Data Structures
- CSC 446 Computer Operating Systems
- CSC 473 Information Systems for Management
- CSC 475 Information Systems Analysis and Design
- CSC 573 Data Bases and Data Management
- GSB 504 Financial Accounting (Alternatively, students may complete ACC 101 and ACC 103)
- PSY 380 Industrial and Organizational Psychology

advanced phase

These requirements pertain only to the Information Systems concentration. See above for the Computer Science concentrations.

Students must fulfill the course requirements of the Information Systems concentration. Consult the Advanced Phase Courses section below for details. Waiver of some of these courses is possible in individual cases but requires the approval of the student's advisor.

Conditionally admitted students will not receive credit for any Advanced Phase courses completed prior to passing the Admission Phase. Fully admitted students will receive credit for at most three courses completed prior to passing the Qualification Phase examination.
Minimal Course Requirement

Students must complete at least 12 courses (48 hours) beyond the Admission Phase and after receiving conditional admission. (CSC 203, CSC 204, GSB 504 and PSY 380 will not be counted among the 12 courses.) This only affects students who receive waiver of Qualification or Advanced Phase courses. Courses taken to fulfill this requirement are subject to the same restrictions as elective Advanced Phase courses.

Advanced Phase Course Requirements

Students must complete the following Advanced Phase courses:

Information System Concentration:
CSC 432 Computer and Information System Modeling
SOC 415 Information Systems and Society

Four of the following including at least one at the 500 level.

CSC 445 Computer Architecture
CSC 450 Office Systems
CSC 474 Decision Support Systems
CSC 480 Artificial Intelligence
CSC 483 Information Processing Management
CSC 484 Computerized Accounting Systems
CSC 491 Design and Analysis of Algorithms
CSC 494 Software Methodologies
CSC 560 On-Line Systems and Telecommunications
CSC 565 Voice Telecommunication
CSC 566 Integrated Telecommunication Systems
CSC 571 Software Maintenance
CSC 572 Computer Security
CSC 574 Advanced Topics in Database
CSC 698 Master's Project/Theory
SOC 467 Organizations
PSY 443 Psychology of Human Performance

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

Standard Computer Science Concentration

Four of the following courses including at least one 500 level course.

CSC 432 Computer and Information Systems Modeling
CSC 447 Concepts of Programming Languages
CSC 448 Compiler Design
CSC 480 Artificial Intelligence
CSC 490 Theory of Computation
CSC 492 Advanced Topics in Algorithms
CSC 493 Formal Grammars and Automata Theory
CSC 545 Advanced Computer Organization
CSC 546 Operating Systems Design
CSC 548 Advanced Compiler Design
CSC 698 Master's Project Thesis

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

Elective courses must be numbered in the 400-599 range. At most two of them may be courses taken from other departments at DePaul or at some other institution. Students must obtain written approval of the Director of Graduate Studies before taking courses from other departments at DePaul and must justify the inclusion of these courses in their program. The following courses are exempted from this requirement and may be taken without prior approval:

- SOC 415 Information Systems and Society
- SOC 467 Organizations
- PSY 443 Psychology of Human Performance

Credit will be given for courses taken at other institutions only if they are approved by both the Associate Dean of the College of Liberal Arts and Sciences for the Loop Campus (consult the appropriate section on the transfer credit policies of the College) and the Director of Graduate Studies.

Courses suggested for the Admission Phase never count for elective credit. Courses required for the Qualification 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 Entrance Examination. Fully admitted students will receive elective credit for courses taken before passing the Qualification Phase 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 will be 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 2.75 (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 quarter or else they will change to grades of "F" which will not be changed later.

Courses

All courses carry 4 hours of credit unless otherwise indicated.

Computer Usage Fee: All courses requiring a computer account will carry a computer usage fee. Fees will vary according to specific courses affected. See class schedule for individual listings.
undergraduate courses - phase I

These courses count only for Admission Phase requirements.

**ACC 101 Principles of Accounting I** (Prerequisite: ACC 101.) An introduction to accounting as the means of recording, storing, and summarizing economic events of the business enterprise. Emphasis is placed on financial statements and other financial reports to management and the public based on the accounting equation, accrual accounting concepts, and data gathering techniques.

**ACC 103 Principles of Accounting II** (Prerequisite: ACC 101.) A companion and sequel course to Accounting 101. This course continues the exploration of basic accounting fundamentals and concepts as well as financial statements and their use in the business world. An overview of management accounting concepts is also provided.

**BMS 126 Calculus with Applications to Business** (Prerequisite: MAT 140.) Elements of differential and integral calculus with business applications. Partial differentiation.

**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** (Prerequisite: CSC 203.) File management, tape and direct access devices, indexed sequential, relative, and direct files. Access methods, subprograms, sort/merge feature, Database applications.

**CSC 205 FORTRAN Programming** (Prerequisite: Math 101 or equivalent.) 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.

**CSC 210 Programming with PL/1** An introduction to structured computer programming using the language PL/1. Topics include simple data types, control structures, character string processing, array processing, procedures and functions.

**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, Functions and block structures. Preprocessors, Input and output, UNIX operating system. Laboratory fee.

**CSC 230 Programming in ADA** Data types, control structures, subprograms, overloading packages and libraries. Private types, generics. Tasting implementation issues. This is an intensive course and good programming skills are assumed. Laboratory fee.

**CSC 310 Principles of Computer Science I** (Prerequisite: CSC 210.) Conceptual models of a computer, machine and assembly language. Internal data representation, programming methods, recursion.
CSC 311 Principles of Computer Science II. (Prerequisite: CSC 310.) Basic data structures, stacks, queues, linked lists, trees, tree searches and string processing.

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

CSC 323 Data Analysis and Statistical Software I. Introduction to data analysis. Elementary statistical inference. Regression and correlation analysis. These topics will be supported by a thorough introduction to computer packages (e.g., BMDP, MINITAB, SAS, and SPSS). The emphasis will be on actual experience with selected packages.

CSC 342 Introduction to File Processing. (Prerequisite: CSC 410.) File processing environment and file manipulation techniques. Algorithms for manipulating, and techniques for implementing, inverted lists, multilists, indexed sequential, and hierarchical structures. ISAM and VSAM will be discussed. Programming projects in PL/I will be assigned.

MAT 140 Discrete Mathematics I. (Prerequisite: 1 year of high school mathematics.) Boolean Algebra, graph theory, and combinatorial analysis with computer applications.

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

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

MAT 220 Linear Algebra with Applications I. (Prerequisite: MAT 151) Vectors, equations of lines and planes, matrices, linear independence, linear transformations, determinants.

MAT 348 Applied Statistical Theory and Methods I. (Prerequisite: MAT 151.) Elements of probability theory, discrete and continuous probability models, principles of estimation theory and hypothesis tests with continuous probability models, principles of estimation theory and hypothesis tests with emphasis on large and small samples, inference concerning means, variances and proportions.

PSY 380 Industrial and Organizational Psychology. (Prerequisite: an introductory statistics course.) Application of theories and methods of psychology to the study of human behavior in business, industrial, and other organizations. Analysis of organizations from a systems perspective. Students will learn and be able to use the concepts and terminology of Industrial/Organizational Psychology, will apply these concepts to their personal experiences with organizations, and will learn the techniques of studying organizations from a psychological perspective.

graduate courses

CSC 410 Principles of Computer Science. (Prerequisite: CSC 210) 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 satisfies only for Admission Phase Credit. Students may alternate enroll in CSC 310-311.
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.

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

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


CSC 442 Data Structures. (Prerequisite: CSC 410.) Representation and management of data in a computer. String and numeric representation, string manipulation, arrays, stacks, queues, linked lists, trees, graphs, sorting and searching.


CSC 446 Computer Operating Systems. A conceptual introduction to operating systems. Multiprogramming, time-sharing, concurrent and cooperating processes, scheduling policies, storage management and file management.

CSC 447 Concepts of Programming Languages. A comparative study of computer languages such as ALGOL, PL/I, FORTRAN, APL, COBOL, LISP, and SNOBOL. Information binding, semantics, context free grammars.

CSC 448 Compiler Design. (Prerequisite: CSC 447 or consent.) Design and structure of high level languages. Lexical scan, top down and bottom up syntactic analysis. Syntax directed translation and LR(k) grammars.

CSC 450 Office Systems. Basic technology for information retrieval, analytic tools, communication, text preparation, support tools. Productivity analysis. Distributed network design and network integration issues.


CSC 460 Topics in Operating Systems. (Prerequisite: CSC 446.) A survey of topics of current interest.

CSC 462 Data Communications. (Prerequisite: CSC 445.) 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.

CSC 469 Computer Graphics. A survey of hardware used for computer
graphic displays. Mathematical software including projections and
other transformations, Display file and data structure, Hidden-line
and surface algorithms, Real-time displays.

CSC 472 Metamathematics, Logical Deduction and Computers.
(Prerequisite: Some familiarity with formal mathematical reasoning.)
Deduction in formal theories, decidability, consistency and
completeness, the limits of formal reasoning, Goedel’s Theorem, the
 halting problem for Turing machines, other undecidable problems,
elementary recursion theory.

CSC 473 Information Systems for Management. (Prerequisite: CSC 203 or
CSC 602 or equivalent experience) Teleprocessing and database
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.

CSC 474 Decision Support Systems. (Prerequisite: CSC 473) Analysis, design,
and implementation of decision support systems, structured decision
systems and strategic planning systems. Database and model based
management aspects of DSS. Formal logic and artificial intelligence
aspects of DSS. Case studies.

CSC 475 Information Systems Analysis and Design. (Prerequisite: CSC 573 or
consent.) Performance evaluation of large and small scale
computer systems. User needs analysis and determination of
performance specifications.

CSC 480 Artificial Intelligence. Introduction to machine simulation of human
intelligence. Topics covered include problem solving, game playing,
learning. The LISP programming language will be used.

CSC 481 Pattern Recognition and Machine Perception. Computerized image
analysis, scene description, Mathematical methods of pattern
recognition and scene reconstruction. Applications to robotics,
biomedicine and other areas.

CSC 482 Legal Aspects of Data Processing. Practical legal considerations
arising in a data processing environment are discussed. Areas
include: legislation, contracts, copyrights, patents and fraud.

CSC 483 Information Processing Management. (Prerequisite: CSC 473) 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.

CSC 484 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.

CSC 485 Numerical Analysis. (Prerequisites: MAT 220 and a programming
course) 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.

CSC 487 Operations Research I. Linear Programming. (Prerequisites: MAT 220 and any introductory programming course) The linear Programming problem and its dual, the simplex method, transportation and warehouse problems, computer algorithms and applications to various fields.

CSC 488 Operations Research II. Optimization Theory. (Prerequisite CSC 487.) Integer programming, non-linear programming, dynamic programming, game theory.

CSC 489 Queueing Theory with Computer Applications. (Prerequisite: CSC 432 or consent) An overview of queueing theory, Queueing systems, related random processes, classification of queues, Priority queueing, Computer time sharing and multi-access systems.

CSC 490 Theory of Computation. (Prerequisite: CSC 491 or consent.) An introduction to the mathematical foundations of computation. Random access and Turing machines, recursive functions, algorithms, computability and computational complexity.

CSC 491 Design and Analysis of Algorithms. (Prerequisite: CSC 442.) Consideration of interesting and efficient algorithms for sorting, graph theory, matrix operations and integer arithmetic. Emphasis on measuring the complexity of algorithms and on methods of designing algorithms.

CSC 492 Advanced Topics in Algorithms. (Prerequisite: CSC 491.) 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.

CSC 493 Automata Theory and Formal Grammars. (Prerequisite: CSC 420.) An introduction to the most important abstract models of computation and their applications. Finite state machines, pushdown automata, Turing machines, intractable problems, NP-complete problems, The relationship between formal grammars and automata.

CSC 494 Software Methodologies. A survey of recent techniques for software development and software management. Problem specification, software design and testing, evaluation and documentation. Students will participate in a class project which will be integrated with the lectures.

CSC 496 Microprocessors. An introduction to the hardware and software aspects of microprocessors. Digital electronics, microprocessors, interfacing. Laboratory work will involve hands-on work with microprocessor systems.

CSC 497 Information Theory. (Prerequisite: CSC 420 and MAT 348 or consent.) An introduction to the basic concepts of information theory and coding theory. Measure of information, the fundamental theorem, Hamming, BCH, and other cyclic codes.

CSC 510 Introduction to Systems Programming. (Prerequisites: CSC 445, CSC 446 or consent.) Introduction to macroassembly systems and general microprocessors, input and output control systems, debugging tools.


CSC 545 Advanced Computer Organization. (Prerequisite: CSC 445) Parallel, array and pipeline processors and other topics of current interest. As a class project, students will design and microprogram a CPU using bit-slice techniques.

CSC 546 Operating Systems Design. (Prerequisite: CSC 446) An algorithmic approach to the design of an operating system. Topics are I/O programming; procedure and data sharing in main storage, process and resource control; deadlocks, file systems.

CSC 548 Advanced Compiler Design. (Prerequisite: CSC 448) 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.

CSC 560 On-Line Systems and Telecommunications. (Prerequisite: CSC 446) 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.

CSC 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 distributed data base.

CSC 562 Computer Communication Network Design and Analysis. (Prerequisites: CSC 432, 462, or consent.) 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.

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

CSC 566 Integrated Telecommunication Systems. (Prerequisite: CSC 565)


CSC 572 Computer Security. (Prerequisite: CSC 446 or consent.) 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.

CSC 573 Data Bases and Data Management. Integrated data bases, architecture of data base systems, storage structures, integrated management systems, on-line file organizations.

CSC 574 Advanced Topics in Data Base. (Prerequisite: CSC 573.) Study and comparison of relational, hierarchical and network data base systems. Problems of implementation of data base management systems. Critical evaluation of commercial data base systems.

CSC 575 Information Retrieval. (Prerequisite: CSC 459 or consent.) 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.

CSC 580 Artificial Intelligence Programming. LISP programming techniques. Review of basic LISP: advanced data types, flow of control functions, advanced I/O, editing, compilation, data-driven programming. Artificial intelligence system implementation: semantic networks, slot and filler data bases, inductive information retrieval, procedural knowledge representation, pattern-directed procedure invocation, agerico control structures, augmented transition networks.

CSC 581 Knowledge-based Systems. A survey of knowledge representation techniques including procedural representations, semantic networks, production systems and frames. Detailed study of existing expert systems such as MYCIN, TEIESIAS, AM. Current and future practical applications of expert systems.

CSC 582 Introduction to Robotics Systems. (Prerequisites: CSC 480 and CSC 445 or consent of instructor.) Analysis of methods of the design and operation of robotic systems. Arm control: coordinate transformations, feedback control systems, hardware components. Application of distributed microcomputer systems to robotic control. Discussion of command languages and planning of job assignments.

CSC 583 Understanding Natural Language. (Prerequisites: CSC 480. CSC 580 is highly recommended.) Introduction to natural language understanding, including representation schemes, grammars, parsers, text generation, and machine translation. An overview of some natural language processing systems.

CSC 584 Computer Vision. (Prerequisites: CSC 480, CSC 481.) Introduction to computer vision, including two- and three-dimensional geometry, knowledge representation, computational and stereo vision, and color and texture perception. With applications to robotics, medicine, and industrial processes.
CSC 586 Computational Methods for Data Analysis. Data management and manipulation, simulation of random processes, computational graphics, numerical computations, linear and non-linear models.

CSC 594 Topics in Artificial Intelligence. (Prerequisite: Consent of Instructor)

CSC 595 Computer Logic Design. (Prerequisite: CSC 445) Combinational logic design, sequential logic design, fault detection and fail tolerant design, Multi-valued logic.

CSC 596 Topics in Information Systems. (Prerequisite: Consent of Instructor)

CSC 597 Topics in Data Communications. (Prerequisite: Consent of Instructor)

CSC 598 Topics in Scientific/Statistical Computing. (Prerequisite: Consent of Instructor)

CSC 599 Topics in Computer Science. (Prerequisite: Consent of Instructor)


CSC 603 COBOL Programming. (Prerequisites: three years high school math, MAT 101, or equivalent.) An introduction to programming in the business oriented language COBOL. The emphasis will be on business problems involving processing large amounts of data.

CSC 604 Advanced Topics in COBOL. (Prerequisite: CSC 603) Tape and direct access programming. Job Control Language. Utilities and File management.

CSC 630 Microcomputers in the Classroom. Introduction to microcomputer based instruction systems. Restricted to educators.

CSC 698 Master's Project/Thesis. (2 hours of credit. Prerequisite: consent of advisor.) Students may register for this course only after their advisor has approved a written proposal for their project or 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.

courses from other departments

GSB 504 Financial Accounting. (Prerequisite: Graduate Standing.) 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 studied in detail and analyzed.

PSY 443 Psychology of Human Performance. Consult the Department of Psychology Section of this bulletin for the description of this course.

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

SOC 467 Organizations. Consult the Department of Sociology Section of this bulletin for a description of this course.
economics
(ECO)

faculty

professors
James E. Clecka, Ph.D.
James J. Diamond, Ph.D.
Robert W. Faulhaber, Ph.D.
William A. Hayes, Ph.D.
William R. Waters, Ph.D.

associate professors
Bala Batavia, Ph.D.
William M. Dugger, Ph.D.
Animesh Ghoshal, Ph.D.
Adolph E. Mark, Ph.D.
Margaret E. Oppenheimer, Ph.D.
William H. Sander III, Ph.D.
Richard M. Thornton, Ph.D.
Richard J. Wittgen, Ph.D.

assistant professors
Floyd R. Dill, Ph.D.
Michael S. Miller, Ph.D.

emeriti
Frank J. Brown, Ph.D.
Joseph S. Giganti, Ph.D.

purpose
The purpose of the graduate program of the Economics Department is to provide extensive knowledge and intensive analysis of economic theories and institutions. The program provides wide acquaintance with the basic sources in the field and initiates the student to habits of economic research. 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 doing forecasting and other tasks associated with that profession.
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 and ECO 306 National Income Analysis or equivalent. The remaining courses may be in political science, sociology, psychology, statistics history, or geography.

• Note: Often the number of required courses is reduced when the analytic background and the maturity of the student are taken into consideration.

degree requirements

thesis

• Courses: Eleven (44 quarter hours)

  Core Courses: Five (20 quarter hours)
  ECO 375 Introduction to Econometrics or equivalent
  ECO 505 Advanced Price and Distribution Theory
  ECO 506 Advanced Income Theory
  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 his or her advisor. Two of the four additional courses must be chosen from the 400 and/or 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 specific areas a student may wish to concentrate in are listed below. 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 or equivalent
  ECO 505 Advanced Price and Distribution Theory
  ECO 506 Advanced Income Theory
  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 his or her advisor. Four of the six additional
  courses must be chosen from the 400 and/or 500 levels.

· Written Comprehensive Examination: The comprehensive examination
  includes questions from the core courses (ECO 505, 506, 530, and 580 or
  599) and in addition, either (a) a minimum of two questions from the
  student's Area of Economic Concentration, or (b) if the student has not
  chosen a concentration, questions from two courses chosen by the student
  with the approval of the chairperson or student's advisor.

  The examinations are given in the last half of November and the last half of
  April. Students must notify the chairperson in the last week of October or
  March of their intention to sit for the examination.

areas of economic concentration courses

While not required, a student may acquire an Area of Concentration by
completing four courses in one of the areas listed below.

  Business Economics
  ECO 512 Applied Time Series and Forecasting
  ECO 514 Industrial Organization and Prices
  ECO 515 Business and Public Policy
  ECO 516 Economics and Taxation
  ECO 518 Labor Force Analysis
  ECO 576 Econometric Methods
  ECO 580 Topics in Quantitative Economics
  (Note: Student is required to have an accounting background to concentrate
  in this area.)

  Development and International Economics
  ECO 360 Economics of Underdeveloped Countries
  ECO 361 International Trade
  ECO 539 Comparative Economic Systems
  ECO 557 Topics in Theory of International Trade
  ECO 560 Development of American Economy
  ECO 561 Economics of Underdeveloped Countries
  FIN 557 Problems in International Finance

  Economics of Money and Finance
  ECO 557 Topics in Theory of International Trade
  FIN 510 Advanced Monetary Theory and Banking
  FIN 557 Problems in International Finance
  FIN 599 Graduate Seminar in Finance
Social Economics
ECO 320 Economics and the Common Good
ECO 325 Economics of Poverty
ECO 515 Business and Public Policy
ECO 518 Labor Force Analysis and Wage Theory
ECO 539 Comparative Economic Systems
ECO 560 Development of the American Economy
ECO 561 Economics of Underdeveloped Countries

Urban and Manpower
ECO 325 Economics of Poverty
GEO 333 City Problems and Planning
MGT 333 Labor Law and Legislation
ECO 335 Resource, Energy, and Environmental Economics
ECO 368 Industrial and Commercial Location
ECO 518 Labor Force Analysis and Wage Theory
ECO 550 Regional and Urban Economics

Quantitative Economics
ECO 380 Mathematics for Economics and Business
ECO 512 Applied Time Series and Forecasting
ECO 576 Econometric Methods
ECO 580 Topics in Quantitative Economics
ECO 581 Mathematics for Economics and Business II

Economics as a minor field
Economics may be combined as a minor field only with those departments whose chairmen permit 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.
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.

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.

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.

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.)

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.

Mathematics for Economics and Business I. This and the succeeding course 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

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.

Introduction to Labor and Industry. (Cross-listed with CDG 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.

Development of Economic Education Programs. (Cross-listed with CDG 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.

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.

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.

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.

505 Advanced Price and Distribution Theory. (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 Income Theory. (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.

509 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: National Income and Product Accounts; the simple and advanced models of macroeconomic activity; analysis of consumption, investment, and government spending and finance; business cycles, International economics, macroeconomic problems and policies, and macroeconomic forecasting.
511 Business and Economic Forecasting. (Prerequisite: Graduate Standing. Cross-listed with MAT 511) This course will be primarily concerned with macroeconomic data, variables, and predictions. Emphasis will be on the need for accurate predictions of economic activity and the importance of accurate predictions in implementing national economic policy and in making intelligent business decisions.

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

514 Industrial Organization and Prices. (Prerequisite: Graduate Standing) A course designed to investigate the structure and behavior of modern industrial markets. In addition to a survey of modern theories of pricing in oligopolistic markets and the forms and effectiveness of competition in selected industries, the nature and rationales of certain institutions and practices will be studied e.g. problems of entry, excess capacity, vertical and horizontal integration, mergers and the problem of conglomerates, patents and cross-licensing, the economics of advertising, and concentration in industry.

515 Business and Public Policy. (Prerequisite: Graduate Standing.) A critical examination of the modern business economy in terms of the public purposes of the American people leading to consideration and development of major issues of public policy.

516 Economics of Taxation. (Prerequisite: Graduate Standing.) The economic effects of taxation and the objectives of taxation which include the collection of revenue for public sector projects, macro-economic stabilization and growth, and the attainment of social goals. Taxation is viewed as a pervading market distortion with corresponding effect on prices and resource allocation. The course also addresses the issue of the optimal tax system in light of the diverse goals of taxation.

518 Labor Force Analysis and Wage Theory. (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.

530 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 economists.

539 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.) An analysis and evaluation of the following methods of regional science will be made: economic base studies, regional multipliers, input-output analysis, industrial location measures, shift and share analysis, and gravity migration models, inquiries into the problems of regional income inequality, planning, system of cities, and cost-benefit analysis to social problems of the cities.

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.

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 view that development requires authoritarian control by the state is contrasted with the position that it may be accomplished by private economic decision-making.

Econometric Methods (Prerequisite: ECO 375) The existence of 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 acquaint students with certain areas of quantitative and mathematical economics. To a great extent the content of the course will depend upon the individual instructor. Topics generally included in this course are activity analysis, linear programming, game theory, input-output analysis, growth theory, and inventory and portfolio analysis.

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.
Independent Study. (See Chairman for details.)

Seminar in Economics. (Prerequisite: Graduate Standing.) This course seeks to integrate and unify economic theory and history and empirical economics. The logical structure of economic theory, the interpretation and the testing are emphasized. Students are expected to read, analyze, and discuss articles and books throughout the course.

Thesis Research. (Prerequisite: Permission of the Department Chairman) 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.
english
(ENG)

faculty

professors
Bernard A. Brunner, Ph.D.
Patricia Ewers, Ph.D.
William J. Feeney, Ph.D.
Ellin M. Kelly, Ph.D.
James S. Malek, Ph.D.

associate professors
Hugh J. Ingraschi, Ph.D.
Zahava MacKen, Ph.D.
John E. Price, Ph.D.
Lavon Rasco, Ph.D.
Frank Sherman, Ph.D.

assistant professors
William Fahrenheit, Ph.D.
Kristine Garrigan, Ph.D.
Thomas Liszka, Ph.D.
Heilen I. Marlborough, Ph.D.

emeriti
Rev. James Larkin, C.S.V., Ph.D.
Rev. Jeremiah Lehane, C.M., Ph.D.
Margaret M. Neville, Ph.D.
Rev. John Smith, C.M., M.A.
Frederick I. Tietze, Ph.D.

University of Chicago
Loyola University
University of Oregon
University of Wisconsin
University of Chicago
(on leave 1983-84)

University of Michigan
University of Chicago
Loyola University
Northwestern University
University of California at Berkeley

University of Toronto
University of Wisconsin
Northern Illinois University
Brown University

Illinois University
St. Louis University
Loyola University
DePaul University
University of Wisconsin
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.

The Master of Arts program in English achieves these purposes through graduate courses (a required core, a series in English and American literature, and electives in writing and linguistics, literary criticism, and comparative literature), options for independent study and thesis research, and a written Master's examination.

master of arts: english

admissions requirement

For full admission, students must have at least:

- 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.

degree requirements

- a) 48 hours of graduate credit in English
- b) Achievement of candidacy: A "B" 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, Comparative Literature, 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, taken after course work is completed. The examination is based on a reading list drawn up by a department committee. The list is posted six months before the examination date.
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.

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.

403 The Twentieth Century English Language. Survey of major theories of grammar.

405 The Process of Composition.

407 Problems in Editing and Publishing. Theory, skills, and practice in writing and editing for various kinds of publications.

409 Topics in Writing and Editing. See schedule for current offerings.

Medieval


412 Studies in Middle English Verse Romance. Emphasis on non-Arthurian matter.

419 Topics in Medieval Literature. See schedules for current offerings.

Renaissance

421 Studies in English Renaissance Prose. Major prose works, including More's Utopia, Sidney's Defence of Poesie, Bacon's Essays, and Milton's Areopagitica.


423 Studies in English Renaissance Drama. Renaissance drama, excluding Shakespeare, including works by Kyd, Marlowe, Jonson, Webster, and Ford.


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

429 Topics in Renaissance Literature. See schedules for current offerings.

Restoration and Eighteenth Century

430 Studies in Restoration and Eighteenth Century Literature. Alternating areas of emphasis include the Augustan Age, the Age of Dryden, and the Age of Johnson.

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


Topics in Restoration and Eighteenth Century Literature. See schedules for current offerings.

Nineteenth Century


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

Studies in Nineteenth Century British Fiction. Alternating emphasis on Austen, Scott, Dickens, Thackeray, the Brontes, Hardy, Eliot, Meredith, and Trollope.

Comparative Studies in the Nineteenth Century. English, continental, and American thought, especially in literature, including Hegel, Mill, Eliot, Zola, Emerson, and others.

Nineteenth Century Topics. See schedules for current offerings.

Modern

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

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

Topics in Modern British Literature. See schedules for current offerings.

American Literature

Studies in American Literature: Beginnings to 1820. Studies in the origins of American literature and culture, including Puritanism in American Culture, Franklin and Edwards, journals, diaries, and historical literature.

Studies in American Literature: 1820-1870. Studies in the American renaissance, including Hawthorne and Melville, Irving, Cooper, Poe, the Transcendentalists, Whitman, and Dickinson.

Studies in American Literature: 1870-1920. Studies in American Realism and Naturalism, including Twain, James, the development of modern poetry, the colloquial style, and Naturalism.


Studies in Modern American Poetry. Alternating areas of emphasis, including Imagism, Eliot, Frost, and contemporary poets.


Topics in American Literature. See schedule for current offerings.
Literary Criticism


475 Studies in Literary Analysis. Theoretical and practical instruction in literary analysis for college teachers.

476 Stylistics. The study of style as conveyed in literary texts, with emphasis on contemporary methods of stylistics.

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

Comparative Literature

481 Studies in Comparative Literature: Ancient. Greek, Roman, and Biblical traditions that underlie Western literature.

483 Studies in Comparative Literature: Medieval. Alternating areas of emphasis, including the romance tradition, of Dante, Chaucer, and Boccaccio.

485 Studies in Comparative Literature: Modern. Alternating areas of emphasis, including the twentieth century novel, Symbolist poetry, and developments in form in modern literature.

486 Studies in the Novel. Comparative studies in English, continental, and American novelists, including Faulkner, Dostoevsky, Dickens, Tolstoy, Mann, Grove, and others.

487 Studies in Drama. Comparative studies in English, continental, and American dramatic literature. Alternating areas of emphasis including tragedy, comedy, English and Irish drama, and modern drama.

489 Topics in Comparative Literature. See schedules for current offerings.

Special Studies

498 Independent Study. Written permission of supervising faculty member and of departmental chairperson is necessary before registration. Variable credit.

499 Thesis Research. Written permission of supervising faculty member and of departmental chairperson is necessary before registration.
history
(HST)

faculty

professors
Albert Erlebacher, Ph.D.
Joseph J. Lehmann, Ph.D.
Martin J. Lowery, Ph.D.
Arthur Thurner, Ph.D.

University of Wisconsin-Madison
Northwestern University
Loyola University
University of Chicago

associate professors
Donald Abramoske, Ph.D.
Robert Garfield, Ph.D.
Sholom Singer, Ph.D.
Cornellius Sippel, Ph.D.

University of Chicago
Northwestern University
University of Chicago
University of Michigan

assistant professors
Thomas Croak, C.M., D.A.
Bruce L. Fenner, Ph.D.
Gregory C. Kozlowski, Ph.D.
James P. Krekar, Ph.D.
Sandra F. McGee, Ph.D.
Susan E. Ramirez, Ph.D.

Carnegie-Mellon University
Cornell University
University of Minnesota
Indiana University
University of Florida
University of Wisconsin-Madison

emeriti
Robert F. Fries, Ph.D.
Ralph J. Mailllard, Ph.D.

University of Wisconsin-Madison
Loyola University

purpose

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.
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.

master of arts: history

admissions requirement

For full admission, students must have the following:

- 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.

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

degree requirements

thesis

- Courses: minimum of 48 quarter hours, including
  - HST 401  Historical Method and Bibliography
  - HST 499  Thesis Research
  - 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

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, 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.
HST

• Thesis

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

  African
  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

  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
  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.
courses

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

advanced undergraduate courses

322 History of Medieval Europe. The breakup of the Roman Empire, growth and development of Christianity and Islam, feudalism and the feudal states, the medieval papacy, the Slavic world, rise of urban life, transition to the modern age, decline of the influence of the church.

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.

330 The Renaissance and the Reformation. A detailed consideration of the significant political, economic, intellectual, religious, and artistic developments of the early modern period.

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.

333 Europe from Metternich to Bismarck. The decline of the aristocratic-clerical order, the emergence of capitalism, the appearance of liberal states, and the rise of nationalism in Italy and Germany.

334 Europe in the Age of German Ascendancy. Continental culture, development of imperial rivalries, failure of internationalism and the coming of World War I.

335 Europe Since 1914. A study of the main currents of international affairs during the period, and domestic problems of the leading states, with emphasis upon the dynamic of power politics.

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.

338 Modern Britain Since 1715. (formerly 346) Development of Parliamentary sovereignty; social, political, and economic reforms; political parties and the rise of the labor movement; British foreign policy during the period.

339 Traditional East Asia. Examines developments in the history and civilization of China and Japan approximately to 1800.

340 Revolutionary China and Modern Japan. Problems of Modernization, the two world wars and post-war developments.

341 Islam in World History: the Foundations. 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.
Islam and the West in the Modern World. An examination of the economic, cultural and political interaction of Europe and the Islamic world.

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.

From Slavery to Freedom: Afro-American History, 1750-1865. Black participation in frontier life, in the War of 1812, in the growth of the cotton industry, in the Civil War and Reconstruction.

Toward Freedom: Afro-American History, 1860 to the Present. Reconstruction and its aftermath, Black self-help organizations, the Black Renaissance, Black participation in the World Wars, the civil rights movements.

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

Themes in Afro-American History Presents the historical roots of the conflict of the Black and White races in America and considers means proposed for resolving it.

Africa: The Age of Empires. African History to 1600 A study of African history from earliest times, concentrating on the political, social, and religious aspects of major African States and empires.

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.

Themes in the History of Africa. In-depth studies in the political, religious, cultural, and economic aspects of African history, relates past development to present-day problems in the area.

Russia Under Khans and Tsars: The Kievan 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.

Colonialism and Independence in Latin America. A thorough analysis of Spanish and Portuguese colonizing techniques and comparative development of institutions under the Hapsburgs and Bourbons.
Independence and Neo-colonialism in Latin America. A survey of 19th century Latin America, emphasizing the independence wars, nation-building, ideological struggle and the rise of export economies.

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

Dictatorships and Militarism in Latin America. A study of causes, characteristics, and effects of dictatorships in Latin America, emphasizing the role of the military.


United States—Latin American Relations. A survey of political relationships between the United States and the Latin American nations.

The Caribbean. The history of the Caribbean from colonial times to the present, with special emphasis upon the role of the United States in the development of this region.

Hispanics in the United States. A study of Spanish-speaking people in the United States and their relations with other Americans. The course will concentrate on Mexican-Americans since the Mexican-American War, Puerto Ricans since 1898 and Cuban Americans since Castro.

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, 1861-1877. The causes of the war, its development, and major problems of the peace.

The Emergence of Modern America, 1877-1914. New culture 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.

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.

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

385 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.

386 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.

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

394 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.

395 Historical Sources and Evidence: Nuremberg to My Lai. 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.

396 History of American Legislation. A study of the nature of American laws and the reciprocal influences of law and society upon each other in the context of national legislation in the 19th and 20th centuries.

399 Independent Study. Prerequisites: Junior standing, approval of instructor and chairman.

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)

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. Variable credit.

499 Thesis Research. (Prerequisite: Consent of Chairman.) Variable credit.
interdisciplinary studies
(ISP)

divisional coordinators

communications
Jacqueline Taylor, Ph.D.  
English Department

fine arts and literature
William J. Fahrenbach, Ph.D.  
Head, Fine Arts and Literature

business and commerce
Tom Dolan  
Administrative Assistant to the Dean,  
College of Commerce

social sciences
Grace DeSantis, Ph.D.  
Sociology Department

drama
John Watts, Ph.D.  
Dean, Goodman School of Drama

physical sciences
Avrom Blumberg, Ph.D.  
Chemistry Department

music
Thomas A. Brown, Ph.D.  
Coordinator of Graduate Studies, School of Music

education
Andrew Kapan, Ph.D.  
School of Education
purpose

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

The Program seeks to transcend 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. Likewise, someone interested in Arts and Management may tailor a program of courses selected from Arts and Sciences, the Goodman School of Drama, and the College of Commerce.

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

master of art or master of science: interdisciplinary studies

admission requirements

For full admission, students 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

degree requirements

thesis

- Courses: 48 quarter hours of graduate credit, including:
  1) ISP 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.
- 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 a committee of three faculty 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 300-level courses, and remainder of credit hours from 400/500 level courses.
- 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.
- Final Oral Examination: conducted by a committee of three faculty members appointed by the Director of the Interdisciplinary Studies Program.

course

ISP 499 Thesis Research. Registration for either four or eight quarter hours credit. Student must have written approval before registering of both the chairperson of his/her Program Committee (or Director of the Interdisciplinary Studies Program) and his/her thesis director.
liberal studies
(MLS)

faculty

professors
Avrom A. Blumberg, Ph.D.
Robert W. Foulhaber, Ph.D.
Richard J. Meister, Ph.D.
Arthur W. Thurner, Ph.D.

Yale University
Université de Paris
University of Notre Dame
University of Chicago

associate professors
John E. Price, Ph.D.
Sheila C. Ribordy, Ph.D.
Charles R. Strain, Ph.D.
J. Harry Wray, Ph.D.

Loyola University
University of Kansas
University of Chicago
University of North Carolina at Chapel Hill

assistant professors
Stanley J. Damberger, M.A.
Robert Rotenberg, Ph.D.
Simone Zurawski, Ph.D.

Saint Louis University
University of Massachusetts at Amherst
Brown University

purpose

The Masters of Arts in Liberal Studies (MALS) 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.

The 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 four-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.

Finally, students complete an integrating project. The integrating project consists of an independent, creative work that refines and pulls together learning experiences and skills developed throughout the student’s course of study in the MALS program. Integrating projects may take the form of a research paper, an original work of prose or poetry, an exhibition or performance, or the like.

**master of arts: liberal studies**

**admissions 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 MALS program, how it fits into a process of personal and intellectual development, and what the student hopes to accomplish by enrolling in the program.

**degree requirements**

- Courses: completion of 48 quarter hours of graduate credit which must include

  **Core Courses**
  
  MLS 401 Visions of Self
  MLS 402 Perceptions of Reality
  MLS 403 The American Experience
  MLS 404 The City

  All students will be expected to complete the required core courses with a cumulative average of 2.5 Q. 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 MLS 410-430 series of colloquia. Topics vary from year to year. Unless otherwise indicated, all colloquia carry two hours of graduate credit.

- Electives: six courses chosen from 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.
MLS 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.

MLS 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 artists. Team-taught by a scientist and a humanist.

MLS 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.

MLS 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.

MLS 498 Independent Study. Written permission of the student's advisor and the program director is necessary before registration.

MLS 499 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.
mathematical sciences
(MAT)

faculty

professors
J. Marshall Ash, Ph.D.
Jerry Goldman, Ph.D.
Walter Pranger, Ph.D.
Jacob Towber, Ph.D.
Stephen Vagl, Ph.D.
Yuen-Fat Wong, Ph.D.

University of Chicago
Illinois Institute of Technology
Illinois Institute of Technology
University of Chicago
University of Chicago
Cornell University

associate professors
Susanna Epp, Ph.D.
Constantine Georgakis, Ph.D.
Lawrence Gluck, Ph.D.
Sigrun Goes, Ph.D.
Jeanne LaDuke, Ph.D.
Effat Mousa-Hamouda, Ph.D.
Roger Jones, Ph.D.
Carolyn Narasimhan, Ph.D.
Michael Wichman, Ph.D.

University of Chicago
Illinois Institute of Technology
Illinois Institute of Technology
Northwestern University
University of Oregon
University of Iowa
Rutgers University
Northwestern University
Northwestern University

assistant professors
Jeffrey Bergen, Ph.D.
Barbara Cortzen, Ph.D.
John Duddy, Ph.D.

University of Chicago
University of California at San Diego
Columbia University

Roger Jones, Ph.D.
Chairperson
purposes

In the Pure and Applied Mathematics concentrations leading to the degree of Master of Science the purposes of the Department are to provide the student with the mathematical knowledge required for study and research in mathematics, for the teaching of secondary school mathematics, or for the attainment of career goals in other professions requiring a thorough mastery of pure and applied mathematics. The graduate student in the Master of Science program may choose one of four areas of concentration: 1) pure mathematics, 2) quantitative analysis and operations research, 3) applied statistics, and, 4) actuarial science. Each of these areas has its own concentration of courses and comprehensive examination.

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 courses to individuals carefully chosen for their capacity to rapidly apply what they learn at DePaul to their own classroom settings.

master of science: mathematical sciences

admission requirements

For full admission, students must have the following:

• Bachelor's degree

• The pure mathematics concentration requires 40 quarter hours of undergraduate mathematics, including two quarters of linear algebra one quarter of real analysis one quarter of complex analysis

• The applied mathematics concentrations require four quarters of calculus a course in linear algebra a course in statistics.

(Note: Students without this background may be required to enroll in appropriate mathematics undergraduate courses.)

degree requirements

• Courses: 48 quarter hours of graduate level work in mathematics

• Comprehensive Examination: content of specific courses selected from the student’s chosen areas of concentration.
Pure Mathematics Concentration

• Courses
  MAT 400, 401, 402  Advanced Algebra I, II, III
  MAT 410, 411  Real Analysis I, II
  MAT 437  Advanced Complex Analysis
  MAT 480  Introduction to Topology

Five 400 and 500-level mathematics courses, with the exception of
500-level applied courses. (Note: With written approval of the
Departmental chairperson a student may substitute two 300-level
courses for two of the 400/500 level courses.)

• Comprehensive Examination: contents include MAT 400, 401, 402,
410, 411, 437 and 480, in addition to the content of MAT 370 Linear
Algebra II.

Quantitative Analysis and Operations Research Concentrations

• Courses
  MAT 451  Probability and Statistics I
  MAT 457, 488  Operations Research I, II
  MAT 489  Queuing Theory with Computer Applications
  MAT 495  Dynamic Programming
  MAT 525  Decision Theory
  MAT 548, 549  Applied Statistical Methods and Theory I, II or MAT 452,
              453 Probability and Statistics II, III

Two courses from the operations research area.

Two courses from either the statistics or operations research areas. One
of these two courses may be taken outside of the Department. (Note:
With written approval of the Departmental chairperson, a student may
substitute two 300-level courses for two courses from the operations
research or statistics areas.)

• Comprehensive Examination: The examination covers the contents of
  MAT 451, 487, 488, 548, and 549.

Applied Statistics Concentration

• Courses
  MAT 451, 452, 453  Probability and Statistics I, II, III
  MAT 466  Applied Regression Analysis
  MAT 528  Design and Analysis of Experiments
  MAT 548  Applied Statistical Methods and Theory I

Six additional 400 or 500-level courses in mathematics, at least three
from the statistics area.

(Note: With written approval of the Departmental Chairperson a
student may take two 300-level courses among the six additional
courses.)

• Comprehensive Examination: The examination covers the contents of
  MAT 451, 452, 453, and 548.

Actuarial Science Concentration

• Courses
  MAT 451, 452, 453  Probability and Statistics I, II, IV
  MAT 461, 462, 463  Actuarial Science I, II, III
  MAT 464, 465, 466  Actuarial Mathematics I, II, III
  MAT 487  Operations Research I
Two additional 400 or 500-level courses from the applied areas. (Note: With written approval of the Departmental Chairperson, a student may take these two additional courses on the 300-level.)

- Comprehensive Examination. The examination covers the contents of MAT 451, 452, 453, 461, 462, and 463.

master of arts in mathematics education

program description

This six quarter degree program will be 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 stress in the program is on mathematical content, but significant amounts of time will be 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. 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.

courses

advanced undergraduate courses

| 335  | Advanced Calculus.                  |
| 336  | Calculus of Several Variables.     |
| 337  | Complex Analysis.                   |
| 370  | Linear Algebra II.                  |

graduate courses

Actuarial Science

461 Actuarial Science I. (Prerequisite: MAT 152) Theory and applications of compound interest, annuities, amortization loans, sinking funds, bonds, and consumer loans.

462 Actuarial Science II. (Prerequisite: MAT 461) Theory and application of single-life contingencies, introduction to mortality tables, premiums for life annuities and insurance, analysis of reserves.

463 Actuarial Science III. (Prerequisite: MAT 462) Multi-life contingencies, multiple decrement mortality tables and pension mathematics.

464 Actuarial Mathematics I. (Prerequisite: MAT 152) Calculus of finite differences and graduation methods.
465 Actuarial Mathematics II. (Prerequisite: MAT 451 and 464 or consent) Risk theory and mortality table construction methods.
466 Mathematical Demography. (Prerequisite: MAT 451 or consent) Introduction to demography: Mortality table construction and methods of population and demographic analysis.

Algebra
400 Advanced Algebra I. Groups, isomorphism, theorems of Lagrange and Cayley; homomorphism.
401 Advanced Algebra II. (Prerequisite: MAT 400) Rings, ideals, fields, quotient and extension fields.
402 Advanced Algebra III. (Prerequisite: consent) Linear Algebra
504 Topics in Algebra. (Prerequisite: Consent)

Analysis
410 Real Analysis I. (Prerequisite: MAT 335 or its equivalent) Real numbers, continuous functions on metric spaces, convergence of infinite series and differentiation.
411 Real Analysis II. (Prerequisite: MAT 410) Sequences of functions, interchange of limits with differentiation and integration, improper integrals, functions of several variables.
412 Real Analysis III. (Prerequisite: MAT 411) Lebesgue’s theory of measure and integration; convergence theorems and differentiation; product measure and Fubini’s theorem.
437 Advanced Complex Analysis. (Prerequisite: MAT 411 and 337 or consent) Complex integration and calculus of residues; maximum modulus principle; analytic continuation and the monodromy theorem; conformal mapping.
438 Complex Analysis II. (Prerequisite: MAT 437) Topics in complex analysis.
481 Fourier Analysis and Special Functions I. (Prerequisite: graduate standing)
484 Functional Analysis. (Prerequisite: MAT 412) Topics from Hilbert space theory, operator theory, spectral theory, and topological vector space theory.
515 Topics in Real Analysis. (Prerequisite: Consent)
516 Topics in Complex Analysis. (Prerequisite: Consent)

Geometry
459 Introduction to Algebraic Topology. Homotopy and the fundamental group; polyhedra; elementary homology and cohomology theory; covering space and fibrations.
480 Introduction to Topology. Definition of topological space, subspaces, continuity, separation axioms, axioms of countability, metric spaces, products and quotients, connectedness and compactness.
520 Geometry I. Incidence and separation properties of the plane; congruence, parallel postulate, area theory, ruler and compass construction.
521 Geometry II. (Prerequisite: MAT 520) Riemannian and hyperbolic geometry, metric axioms, triangles and angle sums, consistency of hyperbolic postulates.

Introduction to Differentiable Manifolds. (Prerequisite: MAT 581) The elements of differentiable manifolds including vector bundles over manifolds.

Quantitative Methods and Operations Research


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

Operations Research II. (Prerequisite: MAT 487) Optimization theory, integer programming, non-linear programming.

Automata Theory. (Prerequisite: consent of instructor) An introduction to the most important abstract models of computation and their applications. Finite state machines, pushdown automata, Turing machines. Intractable problems, NP-complete problems. The relationship between formal grammar and automata.


Game Theory. The minimax theorem for two-person zero-sum games. Two-person general sum games and non-cooperative person games, Nash equilibrium.

Statistics and Probability


Probability and Statistics II. (Prerequisite: MAT 451) Joint probability distributions and correlation; sampling distributions; theory of estimation.

Probability and Statistics III. (Prerequisite: MAT 452) Testing of hypotheses; simple linear regression; one-way analysis of variance; nonparametric statistics.

Multivariate Statistics. (Prerequisite: MAT 453 or 549) The general linear model. Multivariate regression and analysis of variance; Discriminant Analysis principal components and factor analysis applications and use of Statistical Software.
Stochastic Processes. (Prerequisite: MAT 548 or 452) Markov chains, branching processes, Poisson process, queueing theory, telephone traffic problems, Brownian motion applications.

Applied Regression Analysis. (Prerequisite: MAT 548 or 452) Simple linear, multiple, polynomial regression models. Selection of best regression equation and examination of residuals for homoscedasticity and autocorrelation. Use of statistical software.

Nonparametric Statistics. (Prerequisite: MAT 548 or 452 or consent) Inference concerning location and scale parameters, goodness of fit tests, association analysis, and tests of randomness using distribution free tests.

Statistical Quality Control. (Prerequisite: MAT 548 or 451) 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.

Queueing Theory with Computer Applications. (Prerequisite: MAT 548 or consent; cross-listed with CSC 489) An overview of queueing theory - Queueing systems, related random processes, classification of queues, priority queuing, Computer time sharing and multi-access systems.

Business and Economic Forecasting. (Cross-listed with ECO 511) This course will be primarily concerned with macroeconomics data, variables, and predictions. Emphasis will be on the need for accurate predictions of economic activity and the importance of accurate predictions in implementing national economic policy and in making intelligent business decisions. (Prerequisite: MAT 353 or 349)

Applied Time Series and Forecasting. (Prerequisite: MAT 549 or consent) Development of the Box-Jenkins methodology for the identification, estimation, and fitting of ARIMA, and transfer-function stochastic models for the purpose of analysing and forecasting stationary, non-stationary, and seasonal time series data. The course emphasizes practical time series data analysis using such computer packages as SYSTAT and BMD, and application to economic, business, and industrial forecasting.

Decision Theory. (Prerequisite: MAT 549 or 453) Structure of statistical decision problems, optimal decision rules, Bayes decision rules, invariance, hypothesis testing and estimation.

Sampling Theory and Methods. (Prerequisite: MAT 548 or 452) Simple random, stratified, systematic, and cluster sampling. Multistage and area sampling. Random response and capture-recapture models.

Design and Analysis of Experiments. (Prerequisite: MAT 549 or 453) 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.
548  Applied Statistical Methods and Theory I. (Prerequisite: MAT 150) The objective of the sequence, of which this is the first course, is to develop competence in the application and understanding of the theoretical foundations of statistical methods. Emphasis is given to both the application of such methods to real life data and the underlying theoretical rationale of the application. Among the topics to be covered are elements of probability theory, discrete and continuous probability models, principles of estimation theory and hypothesis tests with emphasis on large and small samples, inference concerning means, variances and proportions.

549  Applied Statistical Methods and Theory II. (Prerequisite: MAT 548) A continuation of MAT 548. Emphasis is given to statistical methods of inference. Topics to be covered are sample survey methods, cross classifications and the $X^2$ tests, analysis of variance and some experimental designs, simple and multiple regression, non-parametric inference and time series.

586  Computational Methods for Data Analysis. (Prerequisite: MAT 348 or 352) Data management and manipulations, simulation of random processes, computational graphics, numerical computations, linear and nonlinear models.

Foundations

472  Logical Deduction and Computers. (Prerequisite: Some familiarity with formal mathematical reasoning) 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.

474  Set Theory. Naive set theory, ordinal and cardinal numbers, axiom of choice and Zorn's lemma, the Zermelo-Frankel axioms.

497  Information Theory. (Prerequisites: MAT 311 and 451 or consent) An introduction to the basic concepts of information theory and coding theory. Measure of information, the fundamental theorem, systematic and cyclic codes.


610  Calculus and Analysis for Mathematics Teachers, I. Real numbers, functions, limits, analytic geometry, the derivative and its applications. Introduction to LOGO computer language and study of some applications to classroom teaching using microcomputers.

611  Calculus and Analysis for Mathematics Teachers, II. (Prerequisite: MAT 610) Circular functions, the integral, and its applications, exponential and logarithm. Study of important numerical algorithms and implementation using LOGO and microcomputers.

612  Calculus and Analysis for Mathematics Teachers, III. (Prerequisite: MAT 611) Methods of integration, polar coordinates, conic sections, infinite sequences and series. Applications to numerical analysis and approximation with computer applications.
621 Explorations in Turtle Geometry. (Prerequisite: MAT 620, Corequisite: MAT 611) 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.
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. (Prerequisite: MAT 630) Continuation of 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. (Prerequisite: MAT 650) Central Limit Theorem, point and interval estimation of parameters, hypothesis testing, least squares and regression. Introduction to computer packages.
660 Discrete Structures for Mathematics Teachers. Mathematical induction, modular arithmetic and number theory, graphs, matrices, fundamental algebraic structures and their morphisms.
699 Topics in Mathematics for Teachers. (Prerequisite: Consent of Instructor) Diverse topics in mathematical modeling or mathematical appreciation germane to the secondary classroom.

Miscellaneous

599 Independent Study. Offered by arrangement. Approval by Department Chairman required.
nursing
(NSG)

faculty

associate professors
Sally A. Beilenger, M.S.  DePaul University
Donald A. Bille, Ph.D.  University of Wisconsin-Madison
Mary Jeremy Buckman, R.S.M., Ph.D.  St. Louis University
Marilyn Kuzel, Ph.D.  University of Illinois at the Medical Center
Grace G. Peterson, M.N.A.  University of Minnesota

assistant professors
Jeannie Panuncialman, M.S.  DePaul University

adjunct professor
Marcia McCaughey, M.S.  DePaul University

purpose

The purpose of the graduate program in nursing is to prepare qualified nurses for leadership roles in teaching or administration, as well as preparation in advanced clinical practice. Provision is made for continued growth in clinical skills, as well as exploration and testing of various nursing theories.

The graduate program in nursing is based on the same philosophical principles as its undergraduate program. The conceptual framework of the graduate program articulates with and builds on the conceptual framework of the undergraduate program. Three vertical strands (nursing practice, research, and theory development) begun in the baccalaureate program, form the foundation of the graduate conceptual framework.

First year of graduate studies: six core roles of the master’s graduate are introduced as organizing threads for the curriculum. The core roles (clinician in medical-surgical nursing, manager, change agent, teacher, humanizer, and researcher) intertwine with and build upon the vertical strands of nursing practice, research, and theory development.
Second year of graduate studies: each student through specifically designed learning experiences pursues a functional area (either nursing education, nursing administration, or nursing clinical specialization). Cognate courses are
taken to support both advanced nursing practice and/or the functional area.
A thesis completes the student's course of studies.

Students undertaking graduate study are expected to be self-directed.

master of science: nursing

admission requirements

For full admission, students must have the following:

- Bachelor's degree from a National League for Nursing accredited program
  with an upper division in nursing
- Acceptable baccalaureate and/or graduate grade point average
- Satisfactory achievement on the Graduate Record Examination
- Basic statistics course or its equivalent
- Physical assessment course or its equivalent
- Current licensure as a registered professional nurse in Illinois
- Physical examination and positive rubella titer within the year of clinical
  and practicum courses (Requirement of clinical agencies)
- Professional liability insurance of $1,000,000 (one million dollars) during
  clinical and practicum courses. A requirement of clinical agencies. (May be
  purchased at DePaul)

degree requirements

- Courses: minimum of 58 quarter hours.
- Thesis
- Comprehensive Oral Examination: qualification for this examination requires
  completion of a) all course requirements, b) completion of satisfactory
  thesis, and c) a professional portfolio.
## NSG Curriculum

### First Year

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Course</th>
<th>Quarter Hours</th>
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<tbody>
<tr>
<td>Autumn</td>
<td>Medical-Surgical 400-Theoretical Components of Nursing</td>
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<tr>
<td></td>
<td>Nursing Core 410-Advanced Statistics</td>
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<tr>
<td></td>
<td>Cognate</td>
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<tr>
<td>Winter</td>
<td>Medical Surgical 401-Research in Nursing I</td>
<td>4</td>
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<tr>
<td></td>
<td>Nursing Core 436-Advanced Clinical Nursing I</td>
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<td></td>
<td>Cognate (Nursing)</td>
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<tr>
<td>Spring</td>
<td>Medical-Surgical 405-Research in Nursing II</td>
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<td>438-Perspectives in Nursing</td>
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### Second Year

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<th>Quarter</th>
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<td>Autumn</td>
<td>Nursing Education 455-Dynamics of Curriculum</td>
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<tr>
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<td>458-Dynamics of Teaching</td>
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<td>Nursing</td>
<td>451-Effective Organization and Administration of Nursing Service</td>
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<td>Administration</td>
<td>452-Dimensions of Nursing Services</td>
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<td>Neurological</td>
<td>460-Sensory-Perception Dysfunction</td>
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<td>Nursing Speciality</td>
<td>462-Nursing Interventions in Neurological Problems</td>
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<td>Nursing Education 459-Practicum in Teaching</td>
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<td>OR</td>
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<tr>
<td>Nursing</td>
<td>457-Practicum in Nursing Services Administration</td>
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<td>Administration</td>
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<td>Neurological</td>
<td>463-Practicum in Neurological Nursing</td>
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<td>Nursing Speciality</td>
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<td>Spring</td>
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### Courses

All courses are four quarter hours unless otherwise indicated.

### Cognates in Nursing

**NSG 420 Health History and Physical Assessment** (This course, or its equivalent, is a prerequisite to NSG 436) (Accepted as a cognate course only for students enrolled before July 1, 1983.)
Graduate Courses

349 Health History and Physical Assessment. (Prerequisite: Completion of a program for registered nurses or consent of instructor.) A survey course which will provide an enhancement of basic skills in taking and recording a health history and performing physical assessment to differentiate normal from abnormal health status. Laboratory fee $20.00 (Accepted as a cognate course only for students enrolled before July 1, 1983. Students accepted after this date will be expected to have had this course or its equivalent, as a prerequisite to graduate courses.)

400 Theoretical Components in Nursing. A 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 criticized with emphasis on their implications for nursing practice, administration, education, and research.

401 Research in Nursing I. (Prerequisite: NSG 410) 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.

405 Research in Nursing II. (Prerequisite: NSG 401) This course will allow the student to identify a research problem, formulate a proposal, and 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. Computer laboratory fee.

406 Extended Research. This course will be required for students who do not complete their theses during the quarter after all other course work is completed. (Zero credit. Fee will be equivalent to tuition for 2 credit hours per quarter.)

410 Advanced Statistics. This course will emphasize the applied statistical approach focusing on parametric and non-parametric formulate. Examples will be derived from the medical science disciplines.

421 Evaluation in Allied Health Education and Service. (Prerequisite: Graduate standing or consent of instructor. This course is open to non-nurses.) This course explores evaluation systems used in the extant settings of multidisciplinary health professional education and service. These evaluation systems include: quality control for patient care, program evaluation, evaluation of curriculum and instruction, employee performance appraisal, evaluation of inservice education, and evaluation of educational or service administration. Focus is placed on the synthesis and critique of evaluation tools.
422 Applied Physiology. A seminar course focusing on physiological concepts examined within the context of current knowledge, research, and application to the clinical practice setting. Each body system will be explored and interrelated to provide a comprehensive base from which students will develop functional expertise.

423 Political, Economic, and Legal-Bioethical Issues in Health Care Management. (Prerequisites: Graduate student standing or consent of instructor.) This course focuses on the political and economic forces which determine the resources available for health care services, and the legal and ethical dimensions of health services. Political philosophy and financial bases of health service systems are examined. Legal issues are examined in relation to the role of government in health systems, and the effect of laws on patient care are discussed. Ethical issues associated with the administration of the nursing component of a health system are considered.

425 Fiscal Management: Nursing Service and Nursing Education. Fiscal management and budgetary practices in hospitals and higher education institutions are explored. Budget preparation for nursing services and nursing education programs are emphasized. Cost-benefit, cost effectiveness, strategies of clinical nurse specialists and staff development programs as well as fee-setting for nursing services and tuition-setting for higher education programs are determined.

436 Advanced Clinical Nursing I. (Prerequisite: NSG 400) A clinical and seminar course designed to provide the student with an opportunity to expand his scope of nursing practice in adult health. The student examines theories relevant to the core roles of clinician, teacher, and humanizer, and the application of these theories to clients and co-workers in select clinical and other settings. The clinical focus enhances the student's ability to discriminate between current and potential health problems of the client through the application of physical assessment and the delineation between normal and pathophysiological processes in the client with complex medical-surgical problems. (6 hrs.)

437 Advanced Clinical Nursing II. (Prerequisite: NSG 436) A clinical and seminar course designed to provide the student with an opportunity to further expand the scope of nursing practice in adult health. The focus is on the testing of specific theories of nursing and other disciplines in the clinical setting. The student analyzes the theoretical components and formulates, implements, and evaluates clinical decisions regarding the plan of care which is congruent with the proposed or modified theoretical framework. Theories relevant to the core roles of clinician, change agent, and manager, and the application of these theories to clients and co-workers, will be examined in select clinical and other settings. (6 hrs.)
Perspectives in Nursing. Emphasis is placed on major current issues confronting professional nursing.

Seminar in Selected Topics in Nursing. This course is reserved for:
(a) Individual study at a graduate level.
b) Special seminars organized from time to time to accommodate the needs of groups in specialized subjects of topical interest.

Effective Organization and Administration of Nursing Services.
(Prerequisite: NSG 437 or consent of the instructor) Theoretical and philosophical concepts fundamental to administration of nursing services are examined. Administrative functions are used as the framework for exploration of various aspects of the system. The health needs of man are the basis for viewing the system and its functioning to determine how well the system has been modeled to meet these needs.

Dimensions of Nursing Service Administration. (Prerequisite: NSG 437 or consent of the instructor) The various components of the role of the nurse administrator are explored. Areas specific to nursing services are examined such as the utilization of a professional standards board, quality assurance program, and staff development. In addition, labor relations and management by objectives are considered.

Dynamics of Curriculum Development. (Prerequisite: NSG 437 or consent of the instructor) Theories, principles and methods for shaping and changing a nursing curriculum are examined. Sources and issues for curriculum decisions are analyzed, and curriculum evaluation strategies are discussed. A theory of nursing is utilized to construct a selected nursing curriculum.

Practice in Nursing Service Administration. (Prerequisites: NSG 451 and NSG 452) Observation and guided experience in a dynamic hospital department of nursing services. Needs and interests of the student are integrated into the experience. Behavior and actions of various administrative and staff personnel are observed and evaluated in relation to applicable theory with emphasis on the activities of the nurse executive officer. (6 hrs.)

Dynamics of Teaching. (Prerequisite: NSG 437 or consent of the instructor) Theories, principles, and methods of teaching and learning (for application to nursing education) are examined. Emphasis is placed on how to arrange factors external to the learner in order to achieve the most efficient and effective learning. A philosophy of teaching-learning is synthesized and then integrated with a selected philosophy of nursing.

Practice in Teaching. (Prerequisites: NSG 455 and 458) Observation, investigation and application of theories, principles and methods of teaching and learning is carried out in selected nursing education settings. The individual’s objectives for the practicum are emphasized in the extant educational setting. (6 hrs.)

Sensory-Perceptual Dysfunction. (Prerequisites: NSG 437 or consent of the instructor) Emphasis on the concepts of neural and chemical regulation and imbalance. Normal physiology of the neuro-endocrine systems will be reviewed prior to the study of the pathophysiology of these systems.
Nursing Interventions for Neurological Problems. (Prerequisites: NSG 437, 460 or consent of the instructor) The student is familiarized with therapeutic nursing interventions for patients with neurological dysfunction. The nursing process is the operating framework for discussion, study, and practice. There is a limited clinical component that will assist the student to correlate concepts between classroom discussion and patient care.

Practicum in Neurological Nursing. (Prerequisites: NSG 462 or consent of the instructor) Observation and guided experience in the clinical area to further develop clinical expertise caring for patients with neurological dysfunction. The nursing process continues as the framework for practice. Students will be able to pace their own learning as well as evaluate the degree of achievement of pre-identified goals. The seminar portion of the course identifies the multiple roles of the clinical specialist. (6 hrs.)
philosophy
(PHL)

faculty

professors
L. Edward Allemand, Ph.D.
Bernard J. Boelen, Ph.D.
Parvis Emad, Ph.D.
Manfred S. Frings, Ph.D.
James Keating, Ph.D.
Gerald F. Kreeyche, Ph.D.
Robert Lechner, C.Pp.S. Ph.D.
Rev. Thomas N. Munson, S.T.L., Ph.D.

University of Louvain
University of Louvain
University of Vienna
University of Cologne
Catholic University of America
University of Ottawa
University of Fribourg
University of Louvain

associate professors
Mary Jeanne Larrabee, Ph.D.

University of Toronto

assistant professors
Robert A. Cooke, Ph.D.

University of Chicago

adjunct associate professor
David A. White, Ph.D.

University of Toronto

emiritus
Rev. Bruno Switalski, S.T.D., Ph.D.

University of Toronto

purposes

The purposes of the Department are: 1) to prepare those for teaching and research who have the scholarly competence to pursue academic work culminating in the master's or doctoral degree, and 2) to offer to the capable adult whose philosophical goals are non-vocational the opportunity to study seriously for personal enrichment the value orientation of the Department.

In keeping with the intercontinental interests of its faculty, and in serving the needs of philosophical relevance, the Department focuses its attention on phenomenology, life philosophy, philosophies of existence, and the historical sources of these movements.
implementation
The Department offers directed research, courses, seminars, symposia, and colloquia that should guide and stimulate the student in an 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.

degree programs
master of arts
The Department offers both a thesis and a non-thesis program leading to the master’s degree. Students advancing directly to the doctorate are strongly advised to enter the thesis program. Those looking immediately to teaching might more profitably enter the non-thesis program.

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 phenomenology.

master of arts: philosophy
admission requirements:
For full admission, students must have the following:
• Bachelor’s degree
• Satisfactorily completed a minimum of 44 quarter hours (or its equivalent) in major sequence in philosophy

degree requirements
thesis
• Courses: 44 quarter hours of graduate study, including
  28 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 Department gives written approval, the 8 quarter hours may be taken in fields related to philosophy
  8 quarter hours in Phil 699 Thesis Research
• Thesis
• Written Qualifying Examination: Successful completion of an examination in the field of philosophy

non-thesis
• Courses: 44 quarter hours of graduate study, including
  32 quarter hours of philosophy courses numbered 400 and above
12 quarter hours in philosophy courses numbered 300 and above or, if the necessary prerequisites are met and the Department gives written approval, these hours may be taken in fields related to philosophy

- Written Qualifying Examination: Successful completion of a five-hour examination in the field of philosophy

**doctor of philosophy: philosophy**

**admissions requirement**

For full admission, student must have

- Master of Arts degree in Philosophy or its satisfactory equivalent. Academic work must be comparable to that offered at DePaul and must present clear evidence of the applicant's ability to pursue successfully the doctoral program.

**degree requirements**

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.

- Courses: minimum of 108 quarter hours of post-baccalaureate credit including
  48 quarter hours in philosophy offerings numbered 400 and above. These credit hours must include courses, seminars, and independent study.
  Additional credits in PHL 699 Thesis Research to complete total of required hours in post-baccalaureate work.
- Residency: three consecutive quarters of full-time residence, i.e., registration for eight quarter hours.
- Qualifying Examination: successful performance on this examination required before the end of the second quarter of residence.
- Foreign language: thorough reading facility in one foreign language evidenced through departmentally administered tests. This requirement must be fulfilled before the comprehensive examination requirement. (This time factor represents a change from previous departmental policy. For adjustment, see the chairperson of the Department.)
- Admission to doctoral candidacy: approval of the Dean of Graduate School given when the student has 1) successfully passed the Qualifying Examination, the language requirement, all course requirements (excluding PHL 699 Thesis Research), and 2) completed the requirements for full-time residency.
- Candidacy Continuation: registration in non-residency or resident candidacy continuation required each quarter between admission to candidacy and 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 oral examination, not less than eight months, and not more than five years.
• Dissertation: Departmental Committee approval of topic and outline of dissertation given only after admission to candidacy approved.
• Oral examination: defense of the dissertation or a public lecture.
• Dissertation Abstract: 350-word abstract of the dissertation filed with the Graduate School Office.

NOTE: Detailed information on the above degree requirements is listed in a separate departmental brochure. It may be obtained from the Chairperson of the Department.

Courses

Courses listed in the 300 series are background, 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.
305 Philosophy of Language.

History, Traditions, and Foundations
310 Greek Thought: The Roots of Western Culture.
311 Medieval Thought: Reason and Faith.
312 Modern Thought: Ideas in Revolution.
313 Contemporary Thought: The Human Condition.
314 Existentialism.
315 American Philosophy: Political Ideals
320 Systems of Metaphysics.
321 Theories of Knowledge.
325 Basic Concepts of Phenomenology.

Value Studies
340 Philosophy of Religion.
341 Philosophy of the Arts.
342 Philosophy of Law.
343 Philosophy of Work and Play.

Topics and Controversies
350 Philosophy and the Natural Sciences.
361 Figures in Intellectual History.
362 Themes in Eastern Thought.
370 Existential Thinking.
382 Insights of Myth.
383 Philosophical Themes in Literature.
390 Selected Topics. (e.g., phenomenology of resentment, theory of interpretation, philosophy and technology, etc.)
graduate courses

Courses in the 400-500 series are intended to be specific, dealing with individual philosophers, their backgrounds and subsequent influences. They are meant to be detailed both analytically and critically. 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.
420 Augustine. A study of Augustine's philosophy through an examination 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; a study of the Regulae, the Discours, and the Meditations.
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 focusing 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 Science of Logic or the Philosophy of Right.
520 Marx. A study of selected topics and works from both Marx/Engels and their disciples.

Anglo-American Philosophers

451 Early American Philosophy. Selected readings in James, Dewey, Pierce, Santayana. (Replaces 453, 455, 457, 459)
452 Contemporary American Philosophy: Readings in selected topics and authors.
470 Wittgenstein. A study of Wittgenstein's works, either the Tractatus Logico-Philosophicus or the Philosophical Investigations.
495 Advanced Symbolic Logic. A study of modal logic, multi-valued logics, logical antinomies, the logic of relations, theory of computation, and the philosophical presuppositions of logical systems. (Prerequisite: Philosophy 302 Symbolic Logic or equivalent.)

20th Century Philosophers

German

525 Nietzsche. An introduction to the philosophy of Nietzsche by focusing on Beyond Good and Evil, Also Spoke 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.
PHL

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 Marbergi-lectures.
551 Heidegger II. Selected topics and questions.

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-Genet.
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.
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.
590 Trends in Contemporary French Philosophy. A look at the increasing importance of structuralism, philosophy of language, and hermeneutics in contemporary French thought.

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:

699 Thesis Research. Independent investigation of a philosophical problem for the thesis/dissertation. The problem is assigned by the chairman or his designee after consultation with the student. Overall direction and advisement is given by the thesis director. Variable credit.
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 who have been admitted to candidacy who are not in residence and need only occasional use of University facilities, including the libraries. Non-credit. $40.00 per quarter. (Prerequisite: Admission to candidacy.)
physics
(PHY)

faculty

professors
Mary L. Baas, Ph.D.
Zuhair M. E. Saffar, Ph.D.
Edwin J. Schillinger, Ph.D.
Thomas G. Stinchcomb, Ph.D.
Donald O. Van Ostenburg, Ph.D.

Massachusetts Institute of Technology
University of Wales
University of Notre Dame
University of Chicago
Michigan State University, Chairperson,
Graduate Committee

associate professors
Anthony F. Behof, Ph.D.
Gerald P. Lietz, Ph.D.
Margaret Stautberg Greenwood, Ph.D.
Ron-Nyong Yi, Ph.D.

University of Notre Dame
University of Notre Dame
University of Colorado
Harvard University

instructor
Martin J. Dubrin, M.S.
DePaul University

emeritus
Julius J. Hupert, Ph.D.
Northwestern University

purpose

The purpose of the Graduate Physics Program is to develop professional competence in its students. To fulfill this purpose, the Department offers two degree programs: Master of Science in Physics, and the Master of Science in Teaching Physics. The latter degree program develops breadth in the fundamentals of physics for those students interested in high school and junior high school teaching.
At 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.

**degree programs**

**master of science: physics**

**master of science: teaching of physics**

**admission requirement**

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: Strongly recommended that the student submit the results of the GRE Physics examination at the time of application.

**master of science: physics**

**degree requirements**

- Courses: a minimum of 44 quarter hours of graduate credit (11 courses), including:

  - PHY 395 Methods of Theoretical Physics III
  - PHY 410, 411, 412 Theoretical Physics I, II, III
  - PHY 480 Thesis Research

- Two of the following:

  - PHY 420 Electrodynamics I
  - PHY 440 Theoretical Mechanics I
  - PHY 460 Quantum Mechanics I

- 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 the credit earned from PHY 480 Thesis Research.

- Candidacy 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 now 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 quarter 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: teaching of 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 up to and including integral calculus

degree requirements

Eleven courses planned in individual consultation with a faculty member.

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.
312 Computer interfacing.
313 Advanced Digital Electronics.
320 Electricity and Magnetism.
340 Thermal Physics.
350 Optics.
360 Twentieth Century Physics I.
361 Twentieth Century Physics II.
362 Twentieth Century Physics III.
380 Experimental Physics I.
381 Experimental Physics II.
382 Experimental Physics III.
393 Methods of Theoretical Physics I.
394 Methods of Theoretical Physics II.
395 Methods of Theoretical Physics III.
396 Microprocessors.
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.

410 Theoretical Physics I. Lagrangian formalism, angular momentum, central forces and celestial mechanics, particle systems and rigid body rotation about fixed axis, accelerated coordinate systems.

411 Theoretical Physics II. 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.

412 Theoretical Physics III. Schroedinger equation, operators, eigenvalues, series of eigenfunctions, physical interpretation, one and three-dimensional applications.

420 Electrodynamics I. (Prerequisite: PHYS 411) 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 and four-vectors as applied to electrodynamic phenomena, field invariants.

421 Electrodynamics II. (Prerequisite: PHYS 420) More problems in radiation, charged particle collisions, charged particle radiations, bremsstrahlung and Cerenkov radiation, multipole fields, radiation damping.

424 Electrodynamics of Plasma. (Prerequisite: PHYS 411) Introduction to plasmas, single particle motions in electric and magnetic fields, treatment of plasmas as fluids, electrodynamic properties of plasmas.

440 Theoretical Mechanics I. (Prerequisite: PHYS 410) Variational principles; Lagrangian mechanics, rigid body dynamics, small oscillations, and special relativity theory.

441 Theoretical Mechanics II. (Prerequisite: PHYS 440) Hamilton's equations of motion, canonical transformations, Hamilton-Jacobi Theory, introduction to the Lagrangian and Hamiltonian formulations for continuous systems and fields.

442 Applied Mechanics. (Prerequisite: PHYS 310) Mechanics of continuous media, strain and stress tensors, fluid dynamics, mechanical waves; applications to acoustics and geophysics.

445 Statistical Mechanics. Principles of statistical mechanics, applications to weekly interacting systems such as the classical plasma and Fermi gas, strongly interacting systems, transport theory, fluctuations and irreversible processes, phase transitions.

454 Modern Optics. An advanced optics course with emphasis on topics in coherence theory, polarization of light, Fourier transform spectroscopy, optical transfer functions and holography.

460 Quantum Mechanics I. (Prerequisite: PHYS 412) Review of basic quantum theory, vector spaces, linear operators, observables, commutators, projection operators, representations.

461 Quantum Mechanics II. (Prerequisite: PHYS 460) Angular momentum theory, rotations, spin, addition of angular momenta, Clebsch-Gordan coefficients, Wigner-Eckart Theorem, systems of identical particles, invariance.
464 Atomic and Molecular Physics. The experimental foundations for theories of atoms and molecules, with emphasis upon spectroscopy.

465 Nuclear Physics. (Prerequisite:PHY 412 or equivalent) 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.

466 Radiation Physics. (Prerequisite:PHY 361 and 395 or equivalent) Interactions of X-rays, nuclear radiations, etc. with matter, radiation detectors, dosimetry, shielding, applications to medical physics.

490 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.


492 Solid State Device Physics. Physics background for the operation of such devices as the bipolar transistor, the junction field effect transistor (JFET), surface field-effect transistors (MOSFETs); charge coupled devices, Gunn oscillators, the solar cell, etc.

495 Mathematical Physics. (Prerequisite:PHY 395) Topics in mathematical physics more advanced than 395, such as group theory, tensor analysis, functional analysis (linear vector spaces, operators, generalized functions), Green's functions, differential and integral equations.

498 Digital Signal Processing. (Prerequisite: Graduate standing in mathematics, physics or computer science) Elements of circuit and signal theory, theory of modulation, mathematical basis sampling and coding, principles of digital filtering, applications to communications, process control, image and voice recognition, voice synthesis.

Seminars and Independent Study Courses

478 Seminar in Selected Topics of Physics. This course number is reserved for individual study of the graduate level. Special seminars organized from time to time to accommodate the needs of groups of students in specialized subjects of topical interest.

480 Thesis Research. This course number designates research performed to gather thesis material. Up to two registrations are allowed.
psychology
(PSY)

faculty

professors
Thomas S. Brown, Ph.D.
Sheldon Cotler, Ph.D.
Frank A. Dinello, Ph.D.
John M. Reisman, Ph.D.
Edwin S. Zollik, Ph.D.

associate professors
Robert E. Brewer, Ph.D.
Mari J. K. Brown, Ph.D.
Linda Camras, Ph.D.
Ernest J. Dolevs, Ph.D.
Louise Ferone, M.S.W. (Social Work)
Frederick Heilizer, Ph.D.
Leonard Jason, Ph.D.
Sheila Ribordy, Ph.D.
William Terry, Ph.D.
Robert J. Tracy, Ph.D.

assistant professors
Joseph Orban, Ph.D.
LaVonne Robinson, Ph.D.
Midge Wilson, Ph.D.

adjunct faculty
Edward Michaels, Ph.D.

Catholic University of America
Southern Illinois University
Loyola University
Michigan State University
Catholic University of America

Southern Illinois University
Columbia University
University of Pennsylvania
University of Missouri
Loyola University
University of Rochester
University of Rochester
University of Kansas
Illinois Institute of Technology
Texas Christian University

Virginia Polytechnic Institute and State University
University of Georgia
University of North Carolina

Northwestern University
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.

degree programs

The Department of Psychology offers graduate work leading to the degrees of Master of Arts and Doctor of Philosophy. Available programs leading to these degrees are as follows:

master of arts
Clinical Psychology
General Experimental Psychology
Industrial/Organizational Psychology

doctor of philosophy
Clinical Psychology
General Experimental Psychology
Industrial/Organizational Psychology

Additional information concerning graduate programs may be obtained by writing to the Chairperson, 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 are encouraged to apply.

For consideration for admission, the applicant must have the following:
• Bachelor's degree
• Satisfactory undergraduate scholastic average
• Minimum of 32 quarter hours (21 semester hours) in psychology. A three-hour elementary statistics course is to be included in this minimum.
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 upon 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 UCA Graduate Application.

Students considering application to the MA, Ph.D. programs in Clinical Psychology should be aware of the following:

In 1982-83, almost 200 students applied to the doctoral program in clinical psychology. Of the applicants, about 90% were rejected and 10% were admitted. Approximately fifty percent of the successful applicants were female and fifty percent were male. 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 applicant. Last year about one applicant in seven was rejected on this basis. Your application materials should be complete by January 31. We begin the process of evaluating applications 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 a "B" in psychology courses. Typically, successful applicants to our program have an undergraduate GPA of at least 3.5 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 does not accept students with prior graduate study in clinical psychology or closely related fields.
- 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 for admission.
- Minority status. The clinical faculty strongly encourages applications from minority students. About 40% of the graduate students in clinical psychology admitted last year were members of minority groups.
- Handicapped students. Admission of such a student would depend upon the nature of the handicap and the ability of the program to meet the student's training needs.
master of arts: clinical psychology

degree requirements

- Courses: minimum of 72 quarter hours including 4 hours thesis credit, but not including credit for pre-practicum or practicum courses.

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

Note: With the written consent of their advisor, students may waive one or two courses in the core sequence and replace them with graduate courses in Clinical Psychology.

Statistics Courses:

- PSY 410, 411, 412 Advanced Statistics I, II, III

Additional Courses:

- PSY 481 Intelligence Testing
- PSY 482 Personality Assessment
- PSY 484 Behavioral Assessment
- PSY 486 Advanced Psychopathology
- PSY 488 Principles of Psychotherapy
- PSY 500 Professional Ethics and History of Clinical Psychology
- PSY 574 Pre-Practicum
- PSY 577-584 Practicum

- Degree Candidacy: after completion of the first 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 in fulfilling this requirement. Students denied candidacy will be required to withdraw from the doctoral program.

- 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.

master of arts: general experimental 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:
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

Note: With the written consent of their advisor, students may waive one or two courses in the core sequence and replace them with graduate courses in experimental psychology.

Statistics Courses:
Three courses, including either PSY 410 Advanced Statistics I or PSY 411 Advanced Statistics II, and PSY 412 Advanced Statistics III

- Degree Candidacy: upon completion of at least half of the graduate course requirements, each student is evaluated for acceptance as a candidate for the master's 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 in fulfilling this requirement. Students denied candidacy will be advised to strengthen areas of scholastic weakness or to withdraw from the 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.

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**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:
  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 Courses:
  Three courses, including either PSY 410 Advanced Statistics I or PSY 411 Advanced Statistics II, and PSY 412 Advanced Statistics III

  Current Issues Series: PSY 515, Current Issues in Industrial Psychology, is to be taken twice. The subject matter of the course changes with each offering.
Core Course: in the Industrial Psychology Area: four of the following:

- PSY 440 Psychology of Work and Motivation
- PSY 441 Psychology of Leadership
- PSY 442 Personnel Psychology
- PSY 443 Psychology of Human Performance
- PSY 444 Job and Performance Evaluation
- PSY 445 Psychology of Organizational Training
- PSY 559 Seminar in Industrial/Organizational Psychology
- PSY 451 Applied Statistical Prediction
- PSY 454 Small Group Behavior
- PSY 568 Behavior in Large Scale Systems
- PSY 418 Multivariate Analyses
- PSY 420 Advanced Research Methodology (special section)
- PSY 450 Psychological Measurement

Electives: Four courses are required from the interdisciplinary and industrial specialty curriculum.

- Degree Candidacy: upon completion of at least half of the graduate course requirements, each student is evaluated for acceptance as a candidate for the master's 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 in fulfilling this requirement. Students denied candidacy will be advised to strengthen areas of scholastic weakness or to withdraw from the 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.

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doctor of philosophy: psychology

The Department offers programs in Clinical, General Experimental, and Industrial/Organizational Psychology. The Clinical Program offers special emphasis in Clinical Community and Clinical Child Psychology. Within the General Experimental Program the student may specialize in learning, physiological, developmental, social and industrial Psychology. Because of the nature of the requirements, the Industrial Program is described separately. All doctoral programs include a strong emphasis on research.

admission requirements

- Students holding a bachelor's degree are not admitted directly into doctoral programs. During 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.

- Students who have already obtained a master's degree in psychology from another institution may be admitted into the General Experimental or Industrial Psychology Program, but are not admitted into the Clinical program.
-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 430 Advanced Social Psychology
  PSY 437 Advanced Personality or 439 Advanced Developmental
  PSY 486 Advanced Psychopathology
  PSY 500 Professional Ethics and History of Clinical Psychology
  PSY 481 Intelligence Testing
  PSY 482 Personality Assessment
  PSY 488 Principles of Psychotherapy
  PSY 484 Behavioral Assessment
  PSY 599 Seminar in Program Evaluation
  PSY 597 Master's Thesis Research (4 hours)
  PSY 599 Dissertation Research (12 hours)

  Note 1. The minimum of 120 quarter hours excludes credit for pre-practicum and practicum courses.

  Note 2. 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 knowledge of experiential psychology and the student's area of specialization. The examination is given in four sections. Two sections cover two minor areas of experiential psychology selected by the student from the areas of learning, perception, physiological psychology, 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 thenceforth to complete requirements for the doctorate.

- Candidacy Continuation: registration in course(s) or resident or non-resident candidacy continuation is 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 year in 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: the student is 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: general experimental psychology

degree requirements

• Courses: a 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
  PSY 404 Learning Processes
  PSY 406 Physiological Processes
  PSY 430 Advanced Social Psychology
  PSY 437 Advanced Personality
  PSY 439 Advanced Developmental Psychology
  PSY 597 Master's Thesis Research (4 hours)
  PSY 599 Dissertation Research (12 hours)

Description of Sample Program: Developmental Psychology

Coursework for a student specializing in Developmental Psychology would include the Core Courses listed above plus the required sequence in Statistics. In addition, the student will supplement his training by taking additional courses chosen with the aid of his advisor. Choice of additional courses will depend upon the student's particular research interests and career goals. For example, courses may be taken from the areas of Industrial and/or Child Clinical psychology. Possible additional courses are Psychopathology of the Child (PSY 487), Personality Assessment (PSY 482), Behavior Modification (PSY 464), Seminar in Developmental Psychology (PSY 555), Psychology of Leadership (PSY 441), Psychology of Human Performance (PSY 443), and Job and Performance Evaluation (PSY 444). The Seminar in Developmental Psychology (PSY 555) focuses on current research in the area of development and may be taken during both the second and third year.
Research experience is considered an integral part of the student's training and will begin in the first year. With the help of his advisor, the student will begin to plan his thesis project which usually will be conducted during this second year in the program. Research experience during the 3rd 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 dissertation. The dissertation project usually is conducted during the fourth year. Typically the graduate student will 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 psychology, personality, developmental, industrial/organizational, 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 henceforth to complete requirements for the doctorate.

- Candidacy Continuation: registration in course(s) or for resident or non-resident candidacy continuation is required each quarter between admission to candidacy and graduation.

- Dissertation: Departmental Committee approval and acceptance of topic and outline of dissertation is 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: the student is 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.

doctor of philosophy: industrial psychology

degree requirements

- Courses: a minimum of 48 hours beyond the master's requirements, including the following:
Core Courses: Two additional courses plus either a course in history and systems or passing a special exam in this area.

Electives: Three additional courses selected from core courses in the industrial area.

Current Issues Series: Psychology 515, Current Issues in Industrial Psychology, is to be taken one additional time beyond the two times required for the Master's degree. The subject matter changes with each course.

Thesis and Dissertation: Twelve additional dissertation hours.

- Doctoral Candidacy Examination: Designed to assess the student's knowledge of 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, and social psychology. The third section consists of an examination in the student's areas of industrial 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 thenceforth to complete requirements for the doctorate.

- Candidacy Continuation: Course(s) or registration in resident or non-resident candidacy continuation is required each quarter between admission to candidacy and graduation.

- Dissertation: Departmental Committee approval and acceptance of topic and outline of dissertation is 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: the student is 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

302 Personal Adjustment and Mental Health. (Prerequisite, PSY 105) Psychological principles involved in personality and interpersonal adjustments. May not be taken for credit by psychology majors.
303 Human Development. (Prerequisite: PSY 105 or 106) A survey of principles of development from conception through maturity. May not be taken for credit by psychology majors, or if Psychology 333 has been completed with a grade of C or better.

333 Developmental Psychology I: Infancy and Childhood. (Prerequisite: PSY 105 or 106) Description and evaluation of principles and theories of development from conception through childhood.

334 Development Psychology II: Adolescence through Maturity. (Prerequisite: PSY 105 or 106) Continuation of 333 covering development, personality organization, and adjustment.

347 Social Psychology. (Prerequisite: PSY 105 or 106) Survey of social psychological principles emphasizing individual behavior in a social context.

351 Theories of Personality. (Prerequisite: PSY 105 or 106) 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.

352 The Psychology of Prejudice. (Prerequisite: PSY 105 or 106)

353 Abnormal Psychology. (Prerequisite: PSY 105 or 106) Description of the nature, symptoms, and etiology of psychological disorders.

354 Ecological Systems and Behavior. (Prerequisite: PSY 347) Environmental psychology dealing with environmental pollution, systems theory, crowding, deprivation, institutionalization and architecture, and their effect upon man.

355 Small Groups and Leadership. (Prerequisite: PSY 347)

356 Introduction to Psychological Measurement. (Prerequisites: PSY 105 or 106 and 240) Measurement in psychology, emphasis on standardization, reliability, validity, test and scale development. Materials fee $5.00.

360 Theories of Learning. (Prerequisite: PSY 106) A survey of the classical and modern theories of learning.

361 History and Systems of Psychology. (Prerequisite: PSY 105 or consent) Historical development of psychology and its fields.

362 Cognitive Process. (Prerequisite: PSY 106) A survey of modern cognitive psychology with major emphasis on Information Processing theory.


367 Psychology of Exceptional Children. (Prerequisite: PSY 333)

368 Computer Programming. (Prerequisite: PSY 240 or consent) (Cross-listed with Sociology 368) Introduction to word processing, writing computer programs in BASIC or FORTRAN, and use of Statistical Packages such as SPSS or BMDP. Laboratory fee $15.00.

370 Research Methods in Developmental Psychology. (Prerequisite: PSY 275)

372 Research Methods in Social Psychology. (Prerequisite: PSY 275) Laboratory fee $5.00.
375 Perception. (Prerequisite: PSY 105 or 106) Environmental and stimulus control of behavior, chemical control of perception.
377 Physiological Psychology. (Prerequisite: PSY 275) The nervous system and endocrine functions as related to behavior.
378 Comparative Psychology. (Prerequisite: PSY 105 or 106) Patterns of behavior shown by various animal species.
380 Industrial and Organizational Psychology. (Prerequisites: PSY 105 or consent of instructor) Application of theories and methods of psychology to the study of human behavior in business, industrial, and other organizations.
381 Personnel Psychology. (Prerequisite: PSY 380 or consent) Application of concepts from differential psychology and measurement to employee selection, counseling, placement and training in business and other organizations.
382 Organizational Behavior. (Prerequisite: PSY 380 or consent) Application of theories in leadership, work and motivation and job satisfaction to employee and management behavior. Applied social psychology in an organizational context.
383 Engineering Psychology. (Prerequisites: PSY 380 or consent) Application of experimental psychology and individual differences to the design of man-machine systems, work environments, and living environments.
384 Consumer Behavior and Advertising. (Prerequisite: PSY 380 or consent) Application of psychological principles and methods to advertising, marketing, product development, sales, and propaganda.
385 Applied Behavioral Research Methods. (Prerequisite: PSY 240 or equivalent)
390 Statistics for the Behavioral Sciences. (Prerequisite: PSY 240 or equivalent) Applied inferential statistics.
392 Psychology of Alienation. (Prerequisites: PSY 105 or 106) Causes of individual and group alienation, and the resultant behavior.
393 Psychology of Language. (Prerequisite: PSY 105 and 106) Development of language in children, and effects of language on thinking.
394 Advanced Topics in Psychology. (Prerequisites: Senior standing and consent of Chairman)
395 Field Work and Study. (Prerequisite: Junior standing and consent of Chairman) Supervised experience in selected off-campus settings and associated readings.
398 Reading and Research. (Prerequisites: Senior 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.

402  Perceptual Processes (Prerequisite: Twelve hours in psychology) Analysis of the variables involved in the determination of perception with particular attention to the problems of space, motion, distance, size, form, the after effects and the constancies.

404  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.

406  Physiological Processes (Prerequisite: PSY 377 or equivalent) The functional role of neural systems important for the processes of motivation, emotion, sleep, memory, and cognition.

409  Statistics for the Behavioral Sciences (Prerequisite: PSY 240) Applied inferential statistics.

410  Advanced Statistics I (Prerequisite: PSY 240 or equivalent) An introduction to sample spaces, random variables, distributions and parametric statistics. Sampling, the concept of sampling distributions of statistics.

411  Advanced Statistics II (Prerequisite: PSY 410) Point estimation procedures are compared for a variety of parameters. Analyses of variance, planned and post-hoc contrasts, orthogonal polynomials.

412  Advanced Statistics III (Prerequisite: PSY 411) Linear and non-linear regression and correlation.

416  Methods in Behavioral Research (Prerequisite: PSY 411) 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.

418  Multivariate Analysis (Prerequisite: PSY 411) Theory and statistical techniques underlying the analysis of multiple measurements.

419  Factor Analysis (Prerequisite: PSY 418) Theoretical foundations, methods of analysis, and comparison of various factor analytic models.

420  Advanced Research Methodology (Prerequisite: PSY 411) Design, analysis, and execution of basic and applied psychological research.

421  Advanced Experimental Design (Prerequisite: PSY 412)

423  Instrumentation Design, construction and use of instrumentation in the behavioral sciences. (Variable credit)

425  Cognitive Processes Seminar course on student selected topics. Some past topics have dealt with imagery, memory, hypnosis, the use of conditioning principles in human communication, belief systems, and the use of metaphor in stories.
Sensory Processes. (Prerequisites: PSY 402 and 406) Receptor system processes and their relations to psychological phenomena, with attention to similarities and differences among sensory systems and to general principles of sensory integration and orientation.

Advanced Social Psychology. Contemporary theory and research in social behavior, emphasizing the behavior of the individual in a social context.

Attitude Analysis. (Prerequisite: PSY 430) Theory and research in attitude formation and organization, communication and persuasion, resistance to persuasion and measurement techniques.

Social Judgement. (Prerequisite: PSY 430) Theory and research in judgement of social stimuli, perceiving and evaluating persons, and social comparison processes.

Small Group Behavior. (Prerequisite: PSY 430) 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.

Advanced Personality. Critical analysis of research in personality with emphasis on the development and testability of major constructs in contemporary research.

Advanced Developmental Psychology. (Prerequisite: PSY or EDU 333 or 334) Current research and theories in child development relating to the preschool child, elementary school child, and adolescent. Emphasis on cognitive, language, and social/implicit development.


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.

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.

Psychology of Human Performance. Survey of research and theory on basic psychological processes relevant to the study of man-machine interaction. Topics include human factors design for computer systems, evaluation, and software psychology. Emphasis is on the use of course content in practical settings through projects on the design and evaluation of man-machine systems.


Psychology of Organizational Training. (Prerequisite: PSY 442) Critical analysis of techniques and research pertaining to training and development. Emphasis on traditional training programs and innovations for training the information and service employee.
450 Psychological Measurement. (Prerequisite: PSY 412) Logical and mathematical principles underlying test construction with emphasis on evaluating the reliability and validity of scores.

451 Applied Statistical Prediction. (Prerequisite: PSY 412) 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. (Prerequisite: PSY 404) Analysis of principles, practices, and research related to the modification of human behavior.

476 Research Issues in Assessment. Analysis of research and current issues concerning intellectual and personality assessment. (2)

481 Individual Intelligence Testing I. (Prerequisite: PSY 356) 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. (Prerequisite: PSY 481) Administration and scoring of the Rorschach and Thematic Apperception Test and other tests. Evaluation of tests and needed areas of research and development.

483 Advanced Psychodiagnosics. (Prerequisite: PSY 482) Advanced study of projective techniques and other assessment methods, with emphasis on analysis, interpretation and integration of all pertinent clinical data, and report writing.

484 Behavioral Assessment. (Prerequisite: PSY 356 or equivalent) Behavioral observation and recording. Self-report measures. Physiological measurement. Evaluation of behavioral measures and areas of research.


488 Principles of Psychotherapy. (Prerequisites: PSY 476 and 486) Analysis of theoretical approaches to psychotherapy.

489 Group Psychotherapy. (Prerequisite: PSY 488) Principles, theories and techniques of in-group psychotherapy. Problems of selection of group members and evaluation of progress. (2 hours)

490 Understanding and Helping Troubled Children. Integration of developmental theory, psychopathology, and treatment methods with regard to working with troubled children. This special course is designed to benefit professionals already in child-related fields.

491 Treatment Methods with Children. (Prerequisite: PSY 487) Consideration of a variety of treatment approaches used to help alleviate the psychological problems of children with emphasis on play psychotherapy.
492 Principles of Consultation. (Prerequisite: PSY 493) 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. (2)

493 Clinical Community Psychology.

495 Evaluation and Research in Community Mental Health.

500 Professional Ethics and History of Clinical Psychology. (2)

515 Current Issues in Industrial Psychology. Review and evaluation of
current professional and research literature relating to industrial
Psychology.

520 Minority Issues. Consideration of minorities as related to clinical
psychology.

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.

550 Seminar in Teaching Psychology.

551 Seminar in Experimental Psychology.

552 Seminar in Neuropsychology.

553 Seminar in Personality Research.

555 Seminar in Developmental Psychology.

556 Seminar in Social Psychology.

557 Seminar in Learning and Cognitive Processes. (Prerequisite: PSY 404)

558 Seminar in Advanced Statistics. (Prerequisite: PSY 412)

559 Seminar in Industrial/Organizational Psychology.

562 Seminar in Family Therapy. (Prerequisite: PSY 574) (4 hours)

564 Seminar in Clinical Research. (Prerequisites: PSY 476 and 488)

566 Seminar in Psychopathology.

568 Seminar in Community Psychology. Analysis of theories of
community and human behaviors from the standpoint of general
systems principles. (4 hours)

569 Seminar in Program Evaluation. (Prerequisite: PSY 493) Analysis of
major research programs dealing with social and mental health
problems with emphasis on epidemiological and socio-clinical
research methods. (4 hours)

570 Seminar in Psychotherapy Research.

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 and may be repeated three times.
All practica carry zero credit hours.

574 Pre-Practicum in Clinical Psychology. May be repeated three times.

577 Practicum in Clinical Assessment. Supervised experience in intake
interviewing, psychological evaluation and case conference
presentation in a clinic, hospital or community agency setting.

578 Practicum in Clinical Psychology. Supervised experience in
diagnostic assessment, intervention planning, psychotherapy and
report writing through varied assignments to campus or community
agencies.
579 Practicum in Child Clinical Procedures. Supervised practice in the
diagnosis and treatment process of the problems of children and
adolescents. May be repeated twice.

582 Advanced Practicum in Clinical Psychology.

583 Practicum in Community Mental Health.

584 Practicum in Special Areas in Psychology.

special studies

590 Thesis Seminar. (1)

592 Directed Research. A-Experimental, B-Learning, C-Social,
D-Physiological, E-Personality, F-Psychopathology, G-Community
Mental Health, H-Perception, I-Psychotherapy, J-Developmental,
K-Industrial/Organizational. The course involves individual projects
(non-thesis research) under the supervision of a faculty member.
(Arranged by consultation with the Chairman.) (1 to 4)

594 Psychological Research. A course involving intensive readings in
contemporary psychological literature. (Arranged by prior
consultation with the Chairman)

595 Colloquium. Required of all graduate students. Lectures by
psychologists and members of the staff. (No credit.)

596 Internship in Clinical Psychology. (Arranged with consent of Director
of Clinical Training.) (No credit)

597 Master's Thesis Research. Original investigation of a specific
research problem. (3 or 4)

598 Master's Candidate Research. (Prerequisite: PSY 597) Open to
Master's candidates who have fulfilled all requirements for the
degree and who are devoting full time to thesis research and study.
(0 hours; tuition equal to one four-hour course.)

599 Dissertation Research. (4 to 12 hours per quarter)

701 Resident Candidacy Continuation. (Prerequisite: Admission to
Candidacy) 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.

702 Non-Resident Candidacy Continuation. (Prerequisite: Admission to
Candidacy) This registration provides for doctoral candidates who
have been admitted to candidacy who are not in residence and
need only occasional use of the University facilities, including the
libraries. Non-credit, $40 per quarter.
public services
(MPS)

professors
Rosemary S. Bannan, Ph.D.
Edward Ignas, Ed.D.
Joyce Sween, Ph.D.
Dominic Parisi, Ph.D.
Deena Weinstein, Ph.D.

Robert M. Heller, Ph.D.
Program Director

Loyola University
Indiana University
Northwestern University
Northwestern University
Purdue University

associate professors
Larry Bennett, Ph.D.
Judith Bootcheck, Ph.D.
Grace B. DeSantis, Ph.D.
Robert M. Heller, Ph.D.
Robert Leonardi, Ph.D.
Joan Lakebrink, Ph.D.
Robert Rotenberg, Ph.D.
Charles S. Stevens, Ph.D.
Charles Suchar, Ph.D.
Harry Wray, Ph.D.

Rutgers University
Purdue University
University of Chicago
Illinois Institute of Technology
University of Illinois, Champaign-Urbana
University of Wisconsin-Madison
University of Massachusetts at Amherst
Northwestern University
Northwestern University
University of North Carolina at Chapel Hill

lecturers
Stanley Bakshy, Ph.D.
John P. Barrett, M.S.I.R.
Robert Cassiani, M.S.
Christopher Cohen, M.A., J.D.
Joseph Crawford, C.P.A., M.A.
George M. Gitowat, M.S.
Louis Goodman, Ph.D.
William Hay, M.B.A.
Margaret T. Hastings, Ph.D.
Leo Keryczynski, M.S., J.D.

Illinois Institute of Technology
Loyola University
Loyola University
Northwestern University
DePaul University
DePaul University
New York University
DePaul university
Northwestern University
Lewis University
purposes

The public service areas included in the program are not limited to governmental or not-for-profit agencies, but include all human services, professional associations, unions, boards, educational bodies, academic and religious institutions, community agencies including rehabilitation facilities, as well as for-profit organizations working in close liaison with public service organizations.

The Management of Public Services is committed to:

- meet the on-going education and training needs of both public service agencies and their personnel as well as individuals who aspire to enter in or interface such organizations.
- provide training which will increase the skills and resources already developed by the practitioners and mid-careerists in the public services.
- assist the individual in keeping current with the state of the art in management and administrative issues, developments, and challenges.
- provide an atmosphere upon which the student becomes a change agent within the organization and assists in the development of new approaches, plan, methodologies, and ideas.
- direct the preparation of students toward future study or professional employment which will lead to the development of a flexible, innovative, and dedicated manager and administrator.

Emphasis is placed on developing individuals so as to increase their value to the agency of which they are a part and to further their personal development as a resource in the community.

degree programs

The student has available two programs: a Master of Science in the management of public services and a joint program with the College of Law leading to a master of science in the management of public services and a Juris Doctor degree in law.
master of science: management of public services

admission requirements
For full admission, students must have the following:

- Bachelor's degree conferred by an accredited institution
- Grade point average of at least 2.5 on a scale of 4.0
- GRE scores: Not required of students with a graduate degree or its equivalent.
- Pre-program requirements. These pre-program requirements provide the student with the background in accounting, economics, management, and statistics for a successful pursuit of the degree program. Depending on the student's background all or a part of the pre-program courses or their equivalents may be waived by the Program Director.

  MPS 401 Management Foundations of Administration or equivalent
  MPS 402 Financial Foundations of Administration or equivalent
  MPS 403 Economic Foundations of Administration or equivalent
  MPS 404 Analytical Foundations of Administration or equivalent

degree requirements
- Courses: successful completion of 52 quarter hours of graduate credit. Included in this requirement are the following courses:

  core courses (28 quarter hours)
  MPS 500 Functions of the Administrator
  MPS 503 Executive Decision Making
  MPS 504 Introduction to Management Sciences
  MPS 533 Management Planning and Control Systems
  MPS 553 Advanced Organization Concepts
  MPS 598 Problems in Management of Organizations
  MPS 599 Research and Graduate Seminar in Management

  concentration courses (24 quarter hours)

  General concentrations: students may select one of the following concentrations:

  Behavioral Science:
  four courses from the behavioral science course grouping
  two courses from the management science course grouping

  Management Science:
  four courses from the management science course grouping
  two courses from the behavioral science course grouping

  Specific concentrations: students who wish may focus more narrowly on the following areas of concentration:
joint programs: management of public services and juris doctor

The College of Liberal Arts and Sciences (Management of Public Services Program) and the College of Law have designed joint programs of study which permit the full-time student to obtain the M.S. degree in the management of public services and the J.D. degree in law at a substantial reduction in time.

Generally, the combined degree programs require enrollment in both the day and evening classes on a full-time coordinated basis according to a designated schedule and sequence. Enrollment in these programs is restricted to highly qualified and motivated students who meet the standards of the Joint Committee which coordinates these programs.

Admittance into the College of Law and into the College of Liberal Arts Graduate Program does not necessarily guarantee acceptance into the combined degree programs.

Additional information may be obtained on request from either the Program Director, Management of Public Services, or the College of Law.

certification program: administration foundations in public services

The department also has available a program leading to a certificate in Administration Foundations in Public Services. This program is developed for mid-careerists who recognize their need to enhance their managerial and administrative skills. The program is conducted on an intensive weekend or evening basis.

admission requirement

For full admission, students must have

- Bachelor's degree conferred by an accredited institution
certification requirements

- Courses: successful completion at graduate level of the four certificate courses:
  - MPS 401 Management Foundations of Administration
  - MPS 402 Financial Foundations of Administration
  - MPS 403 Economic Foundations of Administration
  - MPS 404 Analytical Foundations of Administration

courses

all courses worth four credit hours unless otherwise indicated.

pre-program courses

MPS 401 Management Foundations of Administration. Survey of past and emerging organizational theories, including concepts of leadership and management principles. (3 credit hours)

MPS 402 Financial Foundations of Administration. An introduction to the discipline of accounting concepts as applied to the not-for-profit organizations. Also a general understanding of statistical methodology for use with financial and other organization data. (3 credit hours)

MPS 403 Economic Foundations of Administration. Review of basic economic behavior concepts and principles in understanding the development of public services and also a review of personnel manpower needs. (3 credit hours)

MPS 404 Analytical Foundations of Administration. A review of statistical and analytical techniques most frequently utilized in public sector organizations. Topics include descriptive and inferential statistics, hypothesis testing, prediction theory, and correlational techniques. (3 credit hours)

core courses

500 Functions of the Administrator. Advanced treatment of the theory and application of the management process including planning, organizing, leadership, and control.

503 Executive Decision Making. (Prerequisite: MPS 500 or may be taken concurrently with 500) Quantitative and non-quantitative approaches to decision making, a basic discussion of probability, main emphasis on the psychological, group, and organization decision-making process, through a case study approach.

504 Introduction to Management Sciences. (Prerequisite: MPS 500) Modern techniques in research methodology, management science and operations research, such as statistical sampling, probability theory, breakeven analysis, linear programming, and project management techniques.
Management Planning and Control Systems. (Prerequisite: MPS 401 or equivalent) Concepts underlying public and non-profit finance, management planning and control methods as well as the budgeting models that accomplish these functions. Also preparation for the financial administration sequence.

Advanced Organizational Concepts. (Prerequisites: MPS 500 and 503) Critical understanding of formal organizations (including their functioning, premises, and consequences) by examining a wide range of concepts, perspectives, activities, and issues concerning organizational life.

Problems in Management of Organizations. (Prerequisite: minimum 8 courses completed.) Examination of the major current issues confronting management. Each student identifies a specific problem to investigate and is required to make a presentation of the findings.

Research and Graduate Seminar in Management. (Prerequisite: MPS 598) Formal aspects in the field of scientific organization and management. A research paper in some special phase of organization or management required. (Binding fee required.)

Behavioral Science Courses

Management and the Behavioral Sciences. Examination of differences between applied and pure sciences in terms of the basic contributions and concepts. Differences analyzed in terms of their relevance to administration.

Human Relations. (Prerequisite: MPS 500) Focus on human, as opposed to technological, aspects of management. Study of one's own human relations skills and how they apply to life as well as work experiences.

Administrative Processes and Organizational Structure of Health Care Organizations. (Prerequisite: MPS 500) Applications of concepts of management and organizational theory to the administration of health care organizations and institutions. Emphasis on understanding the interaction of the clinical and administrative components of the health care team, the formulation of policy, and the control and distribution of resources.

Personnel Theory and Contemporary Practice. (Prerequisite: MPS 500) General and special managerial functions of the personnel department administrator as exercised in the personnel department's functions. Particular emphasis on the development and applications of personnel in various agencies.

Wage and Salary Administration. Topics included are methods of job evaluation for management and non-management positions, appraisal of personnel performance, construction of wage scales, fringe benefits, and related court decisions, as well as development of benefit packages.

Intergroup Relations. Complexities of selected groups and their problems. Consideration of the social and economic adjustments for racial, ethnic, and religious groups, and the current proposals for the reduction of intergroup tensions. Specific areas of interest may include minority groups, equal opportunity employment issues, lobbying and interest groups, as well as labor relations.
Industrial Psychology. Application of the psychological principles of learning, perception, and adjustment to work. Special attention to personnel placement and selection, motivation and morale, training, and introduction to human engineering.

Human Resource Administration in Health Care Organizations. Analysis of various personnel and industrial relations functions as they affect the human resource component of health care organizations and the role of a human resources department in such organizations. Current and projected issues examined as well as the development of sound policies and practices in the areas of recruitment and selection, compensation and benefits, training and development, employee and labor relations, and EEOC legislation.

Communications for Managers: Current Theory and Practice. Advanced course designed to analyze written and oral communications through lectures, role-playing, and analyses of cases. Topical areas can include communication networks, leadership, conducting evaluations, and conducting business meetings.

Health Care Delivery Systems. Examination of various types of delivery systems by practitioners and agencies—public and private—which provide health services. Comparative analysis of the evolution of health care systems on local, national, and international levels, the effects of social policy in health care delivery systems also included. Emphasis on understanding the system of delivering health care services in their different forms.

Determinants of Public Policy. Examination of the process of public policy making. Consideration of the context which limits the range of possible policy options, and details the structure and policies of the policy process. Case studies of specific public policies used to illustrate how the process works.

Health Care Policy Issues. Development of state and national health legislative policy and a survey of the current private, state, and federal policies. Analysis of such major policy areas as private reimbursement, planning access to care, cost containment, manpower development, research, and prevention.

Law Enforcement Policy Issues. Theory, application, and impact on policies in criminal law on police, corrections, and the courts.

Policies and Urban Development. (Cross-listed with Sociology 426) Sequel to MPS 555 (Sociology 426). Community agencies viewed as problem-solving organizations. Concentration on the impact of state and local governments on community organizations and how community organizations influence social policy.

Planning, Policy, and Politics. Public planning (generally defined as guided social intervention by the state) explored as a particular component of the policy-making process. Examples drawn from the United States as well as from other political systems. Attention directed to particular substantive fields, also discussion of the relationship between planning and the broader dimensions of the particular economy.

Social Dimensions of Health Care Management. Overview of health care services. Services examined in terms of the providers of services (physicians and allied health personnel), the population receiving services and the organizational setting in which care is provided. Discussion of alternatives to traditional health services and review of health insurance mechanism.
548 Bureaucracy in the American Polity. Bureaucracy viewed as pervasive means of organizing complex activities in the public as well as the private sector, and examined in terms of formal structural characteristics, information, human dynamics, and examined as a decision-making institution. Further, consideration of the relative compatibility of bureaucracy, so defined, with the remaining components of the American political systems.

550 Management of Training and Internal Development. Methods utilized to identify training needs and certain principles necessary to develop and manage in-service training program. Major topics include needs assessment, curriculum design and planning, and general supervision of instruction.

551 Law and the Human Services. (Cross-listed with Education A&S 495) An understanding of the laws related to fair treatment of personnel. Introduction to the variety of social and legal issues involved in the personnel dimension of their work. Development of the basic research skills necessary to obtain accurate information about them. Various topics will be considered.

552 Principles and Practices of Supervision. (Cross-listed with Education A&S 498) Supervision viewed from a human resources perspective, dealing with motivation, responsibility, and success at work as means to intrinsic satisfaction.

554 Urban and Community Analysis. Quantitative analysis of urban issues including social area analysis, patterns of segregation, neighborhood change and other selected topics.

555 Strategies of Community Organizations. (Cross-listed with Sociology 425) Strategies and techniques used in the formation and process of community organizations. Primary conceptual emphasis from sociology, but a considerable interdisciplinary content included: application of social science knowledge to bring about social change.

556 Law Enforcement and Community Relations. (Cross-listed with Sociology 444) Examination of the policies and practices of law enforcement agencies and personnel and their impact on the communities they serve.

558 Human Services Consulting. (Cross-listed with Education HSC 464) Focus on human behavior rationale in consultation work with personnel in various human services agencies and institutions. Use of case studies, role playing and observation of the consultant role. Stress on the facilitation of communication and dynamics on interpersonal relationships.

559 Human Services Information Systems. (Cross-listed with Education HSC 453) Procedures for the dissemination of economic, occupational, social and educational information channels. Various topics will be considered: economic impact on occupational trends, techniques for conducting surveys, and developing information systems.

561 Labor Relations and Government Policy. Examination of legal requirements and constraints which affect collective bargaining process. Emphasis upon the historical background of labor law and on the Supreme Court decisions affecting the application of these laws to labor relations. Review of present public policy regarding labor law and its impact on services.
562 Law and Administration of Justice. (Cross-listed with Sociology 443) 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.

563 Crime, Delinquency and Systems of Correction. (Cross-listed with Sociology 442) Study of major criminological theories and the application to systems of corrections. Present trends at federal, state, city and private correctional institutions.

564 Institutional Reaction to Deviants. (Cross-listed with Sociology 447) Examination of the social organization of the societal response to individuals labeled as deviant. Acquaints the student with the sociological examination of deviant processing institutions and familiarizes the student with the major conceptual frameworks which explain the functioning of such institutions and which assess the consequences of such processing.

565 Youth Services, Health and Welfare. (Cross-listed with Sociology 434) Review of research on various youth problems (e.g., substance, abuse, pregnancy, runaways) and consideration of efforts at amelioration and control.

566 Sociology of Youth. (Cross-listed with Sociology 461) Critical analysis of literature on non-delinquent youth, focus on the social contexts within which the transition to adulthood occurs.

management science courses

507 Information Technology. (Prerequisite: MPS 504) Preliminary theoretical understanding of the computer and its applications. Principles of computerization, data base, and management information systems stressed.

508 Management Control for Non-Profit Organizations. (Prerequisite: MPS 553) Relationship of accounting information to the management functions of planning and control. Emphasis on management techniques and decisions models which aid in the financial planning and control functions.

509 Budgeting and Program Evaluation. (Prerequisite: MPS 533 or equivalent) Pragmatic approach to resource allocation and budget preparation methods; the preparation and presentation of an actual budget document.

510 Operations Research. (Prerequisite: MPS 504 or equivalent) Advanced treatment of scientific management and operations research. Techniques include linear and non-linear programming, simulation models, etc. Each technique examined and applied to practical case studies.

511 Advanced Statistics. (Prerequisite: undergraduate statistics course and MPS 504) Study of the various sampling distributions, the use of testing hypotheses, and the concept of power of a test, as well as non-parametric methods utilized in solving management problems. Topics and methods of least squares, linear, and normal regression also covered.
Public Sector Financial Administration. (Prerequisite: MPS 533 or equivalent) Topics include the sources of revenue and the nature of expenditures for governmental and other public sector institutions, and also the factors leading to debt financing and subsequent problems of repayment.

Monetary and Debt Management. (Prerequisite: MPS 533 or equivalent) Examination of cash management principles and administration of government debt, the various financing methods, as well as the market for public sector issues.

Policy Analysis. Problems of measuring the impact of public policies. Examination of the commonly used means of evaluating public program impacts, with emphasis placed on their respective strengths and weaknesses. In addition, consideration of the role of policy analysis in the policy making process, and hence the political implications of policy analysis.

Systems Analysis and Design. First part of a two-course sequence on the basic tools of general systems methodology. Analytical skills and problem-solving ability on a theoretical basis in dealing with systems analysis, and also the basic systems techniques of data gathering, recording, analysis, and system implementation.

Advanced Systems Techniques. (Prerequisite: MPS 574) Application of general systems methodology to project planning. A very pragmatic approach taken to develop solutions to various situations. Case studies utilized in developing the student's problem-solving abilities.

Problems in Systems Design and Management. Prepares student to integrate users with the systems functions in understanding organizational constraints as applied to an overall computer system. Special emphasis placed on planning and managing a component of a larger system. Course stands alone from the other systems courses in developing projects plans.

Operations Research for Health Care Facilities. (Prerequisite: MPS 504) Exploration of certain mathematical and statistical models relating to health facilities and services, which pertain to the solution of health care problems in human populations. Standard topics represented are allocation models, queuing theory, dynamic programming, forecasting, simulation, PERT, and inventory models.

special studies courses

Independent Study. (Prerequisites: consent of program director and extensive executive experience) Special topics chosen for study. A project report, the culmination of either a study done in a work setting or library-based research. (Variable credit)

Internship. Supervised work experience during one or more quarters. Focus on management skills in an organizational setting. (Variable 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, $30.00 per quarter.
rehabilitation services
(RSA)

faculty

associate professor
William A. Calzaretta, Ph.D., C.R.C.  Northwestern University

assistant professors
James E. Bordieri, Ph.D.  Illinois Institute of Technology
Janice M. Daleys, Ph.D., C.R.C.  Northwestern University

lecturers
Gary Albrecht, Ph.D.  Emory University
Gary Austin, Ph.D.  Northwestern University
James Bitter, Ed.D.  University of Northern Colorado
James Ciecka, Ph.D.  Purdue University
James DeOre, M.S.  DePaul University
Alex Devence, J.D.  Loyola University
Jerry Dincin, Ph.D.  Northwestern University
Carolyn Eagen, M.S.  DePaul University
Donald Galvin, Ph.D.  University of Michigan
Edwin Gierrmak, C.A.S.  Northern Illinois University
Peter Griswold, M.A.  Michigan State University
Norman Grunwald, M.S.  DePaul University
William Hay, M.B.A.  DePaul University
Donald Jackson, M.S.  DePaul University
James Lundstrom, M.S.  DePaul University
Gary McCleary, M.B.A.  Sangamon State University
Herman Mutov, Ph.D.  New York University
John Newman, Ph.D.  Emory University
Donald Olson, Ph.D.  Northwestern University
Louis Pantino, Ed.D.  University of Illinois
Dominic Parisi, Ph.D.  Northwestern University
Alfred Slicer, M.A.  Northwestern University
Marvin Spears, M.A.  University of Minnesota
Stanley B. Tarr, M.B.A., C.P.A.  Northwestern University
purposes

Programs are offered in rehabilitation services to qualified students to provide

- the knowledge and skills required to manage, supervise, and administer the various rehabilitation facilities which exist to develop the vocational and personal competencies of disabled persons.

- the training of men and women to meet the standards of professionalism in the field.

Four core areas of concentration provide the foundation necessary to develop well-prepared professionals in the rehabilitation field.

Programmatic: Provision of services to rehabilitate disabled persons.

Resource Utilization: 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.

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
certifications

Rehabilitation Facility Administration
Psychosocial Rehabilitation

master of science
Management of Rehabilitation Services
**Certification: Rehabilitation Facility Administration**

- May be taken by persons without 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

**Certificate Requirement**

- 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 Service and Personnel Administration (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 to waive up to six quarter hours of credit, based upon previous academic course experience. The request must be submitted well in advance.

**Certification: Psychosocial Rehabilitation**

- May be taken by persons without entering the degree program.
- Designed to provide rehabilitation professionals with training in the practice and theory of the psychosocial approaches for psychiatrically disabled persons.
- New students seeking careers in this area will be provided with the fundamentals necessary for a successful pursuit of a degree program.

**Admission Requirement**

- Employment in a related rehabilitation work setting

**Certificate Requirements**

- Courses (twelve quarter hours)
  - RSA 410 A&B: Psychosocial Rehabilitation Foundations I (6 credit hours)
  - RSA 412 A&B: 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
- Successful completion of the certificate course requirements in Facility Administration, or their equivalent

degree requirements

- Courses: 12 quarter hours (Certificate of Rehabilitation Facility Administration, or the equivalent)
  - 48 quarter hours (core courses)
  - 6 quarter hours (independent study research courses)

Certificate of Rehabilitation Facility Administration Courses
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 Service and Personnel Administration (3 credit hours)
RSA 407 A&B Business Law and Accounting Principles in the Not-For-Profit Organizations (3 credit hours)

Core Courses:
RSA 638 Computer Utilization and Introduction to Management Sciences in Rehabilitation
RSA 639 Fiscal and Human Resource Management
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 644 The Supervision of Programs and Staff
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 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 their advisors, may waive one or two of the core courses and replace them with other rehabilitation courses.
schedules for completing programs

Students may choose to complete the certificate or degree programs through either an intensive or a day schedule.

- 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 a degree program on the intensive schedule is 10 quarters or 2 1/2 years. 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.

- day schedule
  The day schedule offers a six quarter in-residence program designed for full-time students. Entry into the full-time day schedule is annually; typically, classes commence in the autumn quarter.

non-degree

For non-degree students who wish to increase their knowledge and expertise in the field of rehabilitation, credit for designated courses is available.

admission requirement

- Bachelor's degree from an accredited institution
courses available

All courses listed below are four hours of graduate credit unless otherwise specified.

RSA 611 Family Systems and Disabilities
RSA 612 Gerontological Rehabilitation
RSA 614 Rehabilitation Client Populations
RSA 615 Marketing Strategies in Rehabilitation
RSA 616 Principles and Practices of Private Rehabilitation
RSA 654 The Cornell Management Game (3 credit hours)

Courses

Unless otherwise stated, all courses are three quarter hours.

certificate courses: rehabilitation facility administration

RSA 402 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
disabled individuals. A descriptive overview of the federal/state
rehabilitation system is provided.

RSA 403 Organization and Management Foundations. A - Organizational
A&B Theory - A survey of past and emerging organization theories
including concepts of leadership and authority. B - Management
Principles - An introduction to the concepts, principles and
processes of management in contemporary organizations.

RSA 406 Economic Principles for Social Services and Personnel
A&B Administration. A - An introduction of basic economic behavior
concepts and principles in understanding the development of
welfare services in general and rehabilitation in particular. B -
Personnel Administration - The structure, role and techniques of the
personnel organization in recruitment, selection, placement, job
analysis and job description are reviewed.

RSA 407 Business Law and Accounting Principles for the Not-For-Profit
A&B Organization. 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

RSA 410 Psychosocial Rehabilitation Foundations I. An introduction to theories and concepts of psychosocial rehabilitation. (6 credit hours)

RSA 412 Psychosocial Rehabilitation Foundations II. A survey of the principles and practices of psychosocial rehabilitation. A pre-requisite 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 a faculty advisor.

RSA 611 Family Systems and Disabilities. A study of systems theory applied to the current practice of identifying and assessing family interactional patterns with disabled family members. (4 credit hours)

RSA 612 Gerontological Rehabilitation. Selected theories of psychosocial aspects of aging. Such concerns as stress reactions to retirement, physical disabilities, impact of reduced economic resources, and other personal-social changes in aging are reviewed. Topics will address the knowledge needed by students concerned with rehabilitation of aging clients in institutional, community and home settings. (4 credit hours)

RSA 613 Strategies for Job Placement. Designed to prepare rehabilitation personnel in the development of job placement and job readiness programs within the Rehabilitation process. (4 credit hours)

RSA 614 Rehabilitation Client Populations. Principles and practices of rehabilitation programming relative to the care and treatment of special populations. (4 credit hours)

RSA 615 Marketing Strategies in Rehabilitation. This course explores the resources relevant to Rehabilitation programs and not-for-profit organizations in general. The formulation of marketing strategies are discussed. (4 credit hours)

RSA 616 Principles and Practices of Private Rehabilitation. The goals, objectives, methods, and techniques used in private for-profit rehabilitation are studied. (4 credit hours)

RSA 638 Computer Utilization and Introduction to Management Sciences in Rehabilitation. (Prerequisite: RSA 607 or equivalent). The use of the computer in facility administration and the quantitative methods for decision-making in management are explored.

RSA 639 Fiscal and Human Resource Management. (Prerequisite: RSA 407 or equivalent).
- A - Fiscal Management: the relationship of accounting information to management control, accounting techniques, budgeting, and fiscal administration are examined.
- B - A seminar with emphasis placed on the human factor in the rehabilitation process. Specifically, behavioral decision making, motivation, accountability, wage and salary administration and labor relations are addressed.

RSA 640 Theories and Concepts of Rehabilitation Practice. (Prerequisite: RSA 402 or equivalent) An examination of the philosophical, behavioral, and cultural foundations of rehabilitation practice.
RSA 641 Management Theories and Concepts. (Prerequisite: RSA 403 or equivalent) 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 disabled persons.

RSA 642 Rehabilitation Programming: Principles and Practices. The goals, objectives, methods, and techniques used in rehabilitation programs are studied.

RSA 643 Managerial Principles and Practices. (Prerequisite: RSA 641 or equivalent) Operation systems, employing the case method, development of analytical skills and problem-solving ability, administrative management operations, concepts, and philosophies are studied.

RSA 644 The Supervision of Programs and Staff. A study of the administrative, programmatic and professional aspects of supervision.

RSA 646 Rehabilitation Clients: The Hidden Disabilities. This course will provide basic medical and psychosocial information about the impact of the hidden disabilities.

RSA 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.

RSA 648 Rehabilitation Clients: The Self Evident Disabilities. This course will provide basic medical and psychosocial information about the impact of self-evident disabilities.

RSA 650 Social Psychology of Rehabilitation Administration. Contemporary issues in management and rehabilitation will be examined within the context of human interaction.

RSA 652 The Management of Human Resources. A seminar with emphasis placed on the human factor in the rehabilitation process. Methods of mobilizing the general community and other social service resources are analyzed. Specifically, problems in communication, motivation, morale, and accountability are examined. Wage and salary administration and labor relations are addressed. Students beginning their course of study in 1983 may not take this course.

RSA 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.

RSA 654 The Cornell Management Game. A seminar employing the technique of learning by discovery. Computerized experiences focus on the decision-making processes of the rehabilitation facility manager.

RSA 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.

RSA 657 Job Placement Strategies and Technical Communication in Rehabilitation. A - Principles and practices in programming associated with job placement of disabled individuals are examined. B - Technical Communication in Rehabilitation - Fundamentals of the writing skills applicable by rehabilitation administrators and supervisors.
Emphasis on analyzing the tasks and problems encountered in managing rehabilitation agencies and facilities. An examination is made of the current issues confronting management.

RSA 692 Rehabilitation Seminar: Emerging Issues and Trends. Identification and examination of emerging trends and issues in the field of rehabilitation are studied.

special studies courses

RSA 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.

RSA 661 Selected Topics in Rehabilitation Research. (Independent Study) Continued supervised investigation of the student's identified M.S. project. (Binding fee required.)

RSA 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 only occasional use of the University facilities, including the libraries. Non-credit, $50 per quarter.
religious studies
(REL)

faculty

professors
John J. Collins, Ph.D.
John Dominic Crossan, S.T.D., S.S.L.
William VanderMeer, Ph.D.
Rev. Francis Bruce Vawter, C.M., S.S.D.

associate professors
Rev. Walter T. Brennan, O.S.M., Ph.D.
Paul F. Clemenich, Ph.D.
Rev. Edmund J. Fitzpatrick, S.T.D.
Charles P. Strain, Ph.D.

assistant professor
Dennis F. McCann, Ph.D.

emeriti
Rev. Patrick O'Brien, C.M., S.T.D.

purposes
The Department of Religious Studies endeavors to continue the academic work of persons of scholarly competence toward the master's degree in preparation for a teaching or research career.

Students planning careers in Religious Education as supervisors, administrators, department chairpersons, coordinators, etc., please consult the Graduate School of Education for programs in "Administration and Supervision" and "Curriculum Development."

Rev. Francis Bruce Vawter, C.M., S.S.D.
Chairperson

Harvard University
St. Patrick's College, Maynooth
University of Fribourg
Pontifical Biblical Institute, Rome

University of St. Thomas, Rome
DePaul University
Princeton University
St. Mary of the Lake, Mundelein
Theological Faculty Maronum, Rome
University of Chicago

University of Chicago
Weston College
Catholic University of America
The objectives of the program are (1) knowledge of the varieties of religious experience as found in world religion, (2) knowledge of the pluralism of the Western religious heritage, (3) knowledge of one's own religious heritage, (4) knowledge of the relationship between the religious and the American cultural context, (5) knowledge of the prevailing issues in religious thought, and (6) skills for communicating a sense of religious and cultural identity to one's students.

To provide a coherent and integrated sequence of studies the structure of the graduate program involves a grid composed of four major areas and four major concentrations.

The four major areas are (A) Religion and Western Cultures, (B) Religion and the American Experience, (C) Contemporary Questions in Religion, and (D) Religion and Education. The four major concentrations are (1) World Religions, (2) Biblical Literature, (3) Christianity: Worship, Theology, History, and (4) Values, Ethics, and Morality.

The 300-number courses are open to both undergraduate and graduate students and are numbered according to departmental undergraduate coding. The 400 through 700-level courses are open only to graduate students. These numbers do not represent levels. They are coded by areas (hundreds) and concentrations (tens).

master of arts: religious studies

admission requirements

For full admission, students must have the following:

- Bachelor's degree

- Satisfactory completion of a minimum of 48 quarter hours in a religious studies major sequence (or its equivalent). The Chairperson of the Department will determine whether a student has fulfilled the equivalent.

degree requirements:

- Courses: completion of 48 quarter hours of graduate study which must include

  1) eight quarter hours of 400-level courses from different decimal classes (e.g., 410 and 430);
  2) four quarter hours of 500-level courses from a new decimal class (e.g., 540);
  3) four quarter hours of 600-level courses from the fourth decimal class (e.g., 620); and
  4) either (a) one 700-level laboratory course, or (b) evidence of the knowledge of a relevant foreign language. Competency in the language is to be established either by successfully completing REL 231 Introduction to Biblical Language or by passing a foreign language examination. (Application for the examination must be made before the completion of twenty quarter hours in course work, or by the end of the second quarter of full-time residency, whichever is later.)
• Integrating Critique or Examination, oral or written: Chosen by the student with the agreement of the chairperson. Procedures for the examination will be set in advance in each specific case through consultation between the student and Department.

• Thesis/Non-Thesis. In consultation with a departmental advisor the student will determine whether or not to write a master's thesis.

   Thesis students will register for REL 499 Thesis Research for eight quarter hours. This credit will constitute eight of their forty-eight quarter hours requirement.

   Thesis students will conclude their program with a one hour examination as a defense of the thesis.

   Non-thesis students will conclude their program by satisfactorily completing the remainder of their forty-eight quarter hours requirement.

COURSES

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

A. Religion and Western Culture

1. World Religions

   310 Faith in History and Society. Representative Christian and non-Christian concepts of history and the interrelation of Christianity and history.

   410 World Religions and Western Culture. History and thought of the world's major living religions and their influences on Western culture.

   411 Mystical Tradition in Western Religions. Classics of religious mysticism, past and present, in Judaism, Islam, and Christianity and their influence on Western culture.

2. Biblical Literature

   420  Genesis and the Theology of History. Genesis is used as the principal outline for a study of the theology of history of major Pentateuch sources (excluding the Deuteronomic history).

   421  Deuteronomic Theology. The origins and emphasis of the Deuteronomic theology as reflected in the Deuteronomic history and editing of other Old Testament material.

   422  Israelite Prophecy*.

   423  Israelite History*.

   424  Historical Jesus. Authentic teachings of Jesus in historical and literary perspective.

   425  Resurrection of Jesus in the Gospels. By concentrating on the terminal chapters of the gospels, the genesis of Easter faith is investigated and its meaning clarified.

   426  Gospel of John. Recent research in the meaning of the fourth gospel.

   *Specific topics vary from year to year and are noted in the current Schedule.
3. Christianity, Worship, Theology, History

313 Theological Issues in Eastern Christianity. Crucial theological themes in non-Latin Christianity following the separation of East and West.

314 Studies in the Thought of Great Theologians.


430 Theology in the Patristic Period. Sources, bibliography, principal representatives and main issues.

431 Theology in the Medieval Period. Sources bibliography, principal representatives and main issues.


433 Revelation and the "Modernist" Crisis. A study of traditional doctrines of revelation, the "Modernist" revision, and its impact on current understanding.

434 World Views and Religion. Classical, modern, and post-modern understanding of religion.

435 Rituals and Symbols in the Sacraments. A study of the natural symbols and collective ritual expressions of meaning in the Christian sacraments.

4. Values, Ethics, Morality

440 Major Representatives and Traditions in Western Religious Ethics.

B. Religion and the American Experience

1. World Religions

356 Religions and American Education. Cross-listed with EDU 356. Legal basis of their current relationship and state certification of religion teachers.

510 Spiritual Movements in Contemporary America. Sociological study of some emerging sects and cults in contemporary America.

2. Biblical Literature

520 American Contributions to Historical Biblical Criticism. (2 hrs.)

521 American Contributions to Literary Biblical Criticism. (2 hrs.)

3. Christianity, Worship, Theology, History

530 History of the American Religious Experience. Various religious movements which have shaped American life and the historical roots of religious pluralism.

531 Figures and Ideas in American Theology. Central issues raised for theological reflection by American religious experience.

532 The Arts and Religion. Analysis of select representatives of the arts and religion in contemporary American culture.

"Specific topics vary from year to year and are noted in the current Schedule."
4. Values, Ethics, Morality


Key Figures and Currents in American Religious Ethics. An examination of selected figures, currents, or schools of thought ranging from Jonathan Edwards to the Niebuhrs which have shaped American religious ethics.

Moral Issues in American Culture. An investigation of selected moral issues which have arisen in the American experience, of the ways American religious communities responded to them, and of the moral/ethical resources they brought to bear on them.

C. Contemporary Questions in Religion

1. World Religions

Existential Thinking. Cross-listed with PHI 370. Attempt to rethink the nature of philosophy as related to the human condition.

Anthropological Study in Religion and Culture. A systematic study of the significant messianic and millenarian cults in traditional societies.

Hindu Religious Thought. A study of the history and development of religious thought in the dominant culture of India.

Christian Theology and Other Religions. Self-understanding of Christian theology in response to the study of world religions.

Contemporary Chinese Religion, Culture, and Philosophy.

2. Biblical Literature

Old Testament Problems .


Problems in Biblical Literature .

Dimensions of Biblical Wisdom. Selected writings from the Wisdom literature of the Old Testament and a study of the resulting contrasts and issues.

Mark's Gospel in Recent Research. Meaning and intention of Mark's gospel in the light of redaction criticism.

Christology, Paul and His Predecessors. A study of the earliest Christological formulations recoverable from the tradition together with the use and adaptation of them made by Paul and other canonical writers.

3. Christianity, Worship, Theology, History

Faith. Changing concepts of faith since Vatican I.

God in Contemporary Thought: Secularism. Possibility of meaningful language about God in a secular age. (2 hrs.)

God in Contemporary Thought: Evil and Absurdity. Possibility of meaningful language about God after Auschwitz. (2 hrs.)


Selected Questions in Roman Catholic Theology .

*Specific topics vary from year to year and are noted in the current Schedule.
4. Values, Ethics, Morality

320 Problems in Christian Ethics.
640 Psychologists and Religion. Contemporary literature on the relation between psychology and religion.
642 Religious Ethics and Contemporary Moral Problems. An examination of the ways in which theological ethics have been and might be applied to selected moral problems currently facing Christians.

D. Religion and Education

1. World Religions
391 Student Teaching: Religion. Cross-listed with EDU 391. Seminar and practice teaching. (12 hrs.)
710 LAB: Teaching World Religions. (2 hrs.)

2. Biblical Literature
720 LAB: Teaching the Bible. (2 hrs.)

3. Christianity: Worship, Theology, History
730 LAB: Teaching Church History. (2 hrs.)
731 LAB: Teaching the Sacraments and Liturgy. (2 hrs.)

4. Values, Ethics, Morality
740 LAB: Teaching Ethics. (2 hrs.)

Independent Study and Thesis Research
399 Independent Study.
499 Thesis Research. (8 hrs.)

*Specific topics vary from year to year and are noted in the current Schedule.
sociology
(SOC)

faculty

professors
Rosemary Bannan, Ph.D.
Roberta Garner, Ph.D.
Joyce Sween, Ph.D.
Deena Weinstein, Ph.D.

associate professors
Therese Baker, Ph.D.
Judith Boatcheck, Ph.D.
Grace DeSantis, Ph.D.
Kenneth Fidel, Ph.D.
John Koval, Ph.D.
Charles Stevens, Ph.D.
Charles Suchar, Ph.D.

assistant professor
Robert Rotenberg, Ph.D.

lecturers
Noel Barker, M.A.
Carol Stocking, Ph.D.

emeritus
Lavinia Raymond, Ph.D.

Loyola University
University of Chicago
Northwestern University
Purdue University

University of Chicago
Purdue University
University of Chicago
Washington University
University of Oregon, Eugene
Northwestern University
Northwestern University

University of Massachusetts at Amherst

University of Illinois, Urban
University of Chicago

University of Sao Paulo
purpose

The purpose of the graduate program in Sociology is to enable students to apply the findings of sociology to concrete issues of social policy. The Program emphasizes the learning of sociological principles, the strategies and methods of research, and the implications of sociological findings for policy planning. These intellectual and practical skills are oriented toward the needs of individuals involved in social research, evaluative work settings, and policy decision-making and implementation.

A Core Program provides a basic knowledge of issues of social policy, social change, formal organization, and research strategies and modes of analysis. Three specialized areas offer more detailed training in applied sociology: Urban Studies, Law and Society, and Health and Human Services. As an alternative to specialized training, the student may develop a program in general sociology.

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, 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

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 and social policy is required.

degree requirements

- Courses:

  Core Courses: Students must complete a series of courses introducing them to the concepts and the methods of social policy.

  SOC 402 Issues in Policy Analysis
  SOC 403 Social Policy and Social Change
  SOC 411 Methods of Policy Analysis and Evaluation
  SOC 467 Organizations

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Qualifying Examination: Upon completion of core courses, students will take a qualifying examination for continuance in the graduate program.

Courses: Specialized or General Electives. Students must complete 32 hours in courses, selected from specialized areas or from a set of general electives. Students may, in consultation with their advisor, supplement their training by taking additional courses in other departments.

Non-thesis: Two Project Papers: Students who elect not to write a thesis complete two project papers (one, bibliographical; other, data analysis) in conjunction with two of the 400-level elective courses in order to develop skills of conceptualization and analysis.

Thesis: Prerequisites for enrolling in the thesis research courses (SOC 500 and 501) are successful completion of the core courses and the qualifying examination.

Admission to candidacy requires approval of the student's Thesis Committee.

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

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 an "A" or "B" to obtain graduate credit.

The Sociology Department offers advanced undergraduate courses in the areas of law and society, urban studies, social services, juvenile justice, and foundations of sociology. 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

402 Issues in Policy Analysis. Case studies in the areas of human services, law, and community. Examination of the theoretical underpinnings in the formulation of social policies and the implementation of programs.

403 Social Policy and Social Change. Conceptual and theoretical basis for analyzing social policy, planning policy in the larger context of social change.


467 Organizations. (Cross-listed with MPS 563) A consideration of current problems faced by policy planners in corporate and public sector organizations, as well as selected theoretical and empirical studies related to the administration of programs.
sociological background

240 Introductory Statistics for the Social Sciences. (Prerequisite: MAT 101 or two years of high school math or consent of instructor)
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.

400 Essential Sociology for Graduate Study. Review of sociological perspectives on social interaction and the organization of societies. The goal of the course work is to provide students with a basic understanding of the language, conceptual frameworks and sub-fields of the discipline of sociology. This course is desirable for graduate students who have not had extensive undergraduate work in sociology. The course counts toward the 36 hours of graduate electives.

401 Sociological Theory: Concepts and Perspectives. Introduction to the major theoretical and conceptual perspectives of sociology and the ways in which they are applied to research and analysis — with an emphasis upon implications for social policy.

courses in specialized areas

Urban Studies

420 Urban Sociology. Comprehensive introduction to advanced level studies in applied and evaluative aspects of urban sociology. This course introduces the student to contemporary urban theory and research and presents an evaluation of selected urban issues.

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 area of urban problems and policy stressing the use of techniques of analysis and the formulation of social policy and policy analysis.

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 Population Trends, 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 The Sociology of Welfare and Welfare Services. 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. (Cross-listed with MPS 555) Review of research on various youth problems (e.g., substance abuse, pregnancy, runaways) and consideration of efforts at amelioration and control.

437 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.

438 Research Strategies in HEW. Examination of special and general research techniques, an assessment of procedures, strategies, data sources related to evaluative research.

Other courses recommended for students in this area include Sociology of Youth, Socialization, Social Deviance, Sex Roles, and Social Inequality.

Law and Society

440 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.

442 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.

443 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.

444 Law Enforcement and Community Relations. (Cross-listed with MPS 566) Examination of the policies and practices of law enforcement agencies and personnel and their impact on the communities they serve.
Institutional Reaction to Deviants (Cross-listed with MPS 564). Examination of the social organization of the societal response to individuals labeled as deviant. Acquaints the student with the sociological examination of deviant processing institutions and familiarizes the student with the major conceptual frameworks which explain the functioning of such institutions and which assess the consequences of such processing.

Research Strategies in Law and Society. Techniques used for evaluating agencies, policies and problems of law enforcement, corrections, and legal systems.

Other courses recommended for students in this area include Intergroup Relations, Social Deviation and Collective Behavior.

general electives

Program Evaluation. Policy impact analysis; experimental and quasi-experimental approaches for assessing the consequences of education, social services, criminal corrections, law, welfare reform, urban and business administrative programs; practical and political problems of evaluation research; formative and summative distinctions.

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.


Advanced Statistics II. (Cross-listed with PSY 411) Point estimation procedures are developed for a variety of parameters. Interval 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.

Individual in Society. 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.
Social Deviance. An analysis of the various theoretical positions and findings in the sociology of deviant behavior. Emphasis upon such topics as the labelling of deviants, the analysis of deviant careers and patterns of deviant socialization and the roles of agents or agencies of social control.


Sex Roles. Attention to the growing literature and empirical research on changing patterns in economic, psychological and social outcomes for women and men. Development of bibliographies and analyses of current data on sex differences in social indicators.

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.

Afro-American Culture. (Cross-listed with EDU 490) 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.

Special Topics in Sociology. Special courses will be offered as students and faculty identify selected topics of common interest.

Internship. Students may be placed with agencies where they will have the opportunity to participate in typical sociological research. Credit may vary but is subject to the limit of eight quarter hours.

Independent Study. (Prerequisite: Permission of Chairman.) Variable credit.

Thesis Research


Thesis Research. The student works independently toward the completion of the thesis.