

College of Pharmacy

BIOPHARMACEUTICAL SCIENCES

Mailing Address:
335 College of Pharmacy Building (MC 865)
833 South Wood Street
Chicago, Illinois 60612-7231

Campus Location: 335 PHARM
Program Codes: 20FS1903MS (MS)
20FS1903PHD (PhD)
Telephone: (312) 996-2253
E-mail: bpsdgs@uic.edu
Web Site: <http://www.bps.uic.edu/>
Director of Graduate Studies: Richard A. Gemeinhart,
PhD

The Department of Biopharmaceutical Sciences offers work leading to degrees in Biopharmaceutical Sciences at both the master's and doctoral levels. Course work and research are available in the areas of pharmaceuticals, pharmacodynamics, toxicology, cellular and molecular biology, nanopharmacy, and pharmacogenomics. Biopharmaceutical Sciences also participates in a joint PharmD/PhD program (see *PharmD/PhD* in this section of the catalog), the Medical Scientist Training Program (see *Medical Scientist Training Program* information in the *College of Medicine* section of the catalog), and the Interdepartmental Concentration in Neuroscience.

Admission Requirements

Transcripts of all undergraduate and any graduate work must be submitted. In addition to the Graduate College minimum requirements, applicants must meet the following program requirements:

Master of Science and Doctor of Philosophy

- **Prior Degrees** Baccalaureate degree in pharmacy, pharmaceutical sciences, chemistry, biochemistry, bioengineering, biological sciences, a related biomedical science area, or a doctor of pharmacy degree.
- **Grade Point Average** At least 3.00/4.00.
- **Tests Required** GRE General.
- **Minimum TOEFL Score** 600 (paper-based); 250 (computer-based); 80, with subscores of Reading 19, Listening 17, Speaking 20, and Writing 21 (new Internet-based TOEFL).
- **Letters of Recommendation** Three required from individuals who are familiar with the applicant's training, ability, character, and potential for successful completion of the program.
- **Personal Statement** Required; one page. The statement should address the applicant's educational and professional objectives.
- **Other** This program does not typically admit applicants for an MS degree.

Degree Requirements

In addition to the Graduate College minimum requirements, students must meet the following program requirements:

Master of Science

- **Minimum Semester Hours Required** 32.
- **Course Work** *Required Core Courses:* BPS 501, 502; and BSTT 400 or NUSC 525; GC 401, 470, and 471. Students must register for BPS 595 every semester for a minimum of 4 hours.

- **Comprehensive Examination** None.
- **Thesis, Project, or Course-Work-Only Options** Thesis required. Students must earn at least 6 hours in BPS 598.

Doctor of Philosophy

- **Minimum Semester Hours Required** 96 from the baccalaureate, 64 from the master's.
- **Course Work** *Required Core Courses:* BPS 501, 502; and BSTT 400 or NUSC 525; GC 401, 470, and 471. Students must register for BPS 595 every semester for a minimum of 8 hours. At least 20 hours must be in 500-level didactic courses.
- **Electives:** At least 14 hours must be in 400–500-level didactic courses and all courses should be selected in consultation with the student's research advisor.
- **Preliminary Examination** Required.
- **Dissertation** Required. Students must earn at least 50 hours in BPS 599.
- **Other Requirements** Please consult the departmental handbook for full information on all requirements.

Interdepartmental Concentration in Neuroscience

Doctoral students may pursue the Interdepartmental Concentration in Neuroscience. Refer to *Interdepartmental Concentration in Neuroscience* in the *Graduate College* section for more information.

FORENSIC SCIENCE

Mailing Address:
Forensic Science Program (MC 866)
833 South Wood Street
Chicago, IL 60612-7231

Campus Location: 452 PHARM
Program Code: 20FS1274MS
Telephone: (312) 996-2250
E-mail: reg@uic.edu
Web Site: http://www.uic.edu/pharmacy/depts/Forensic_Science/
Head of the Program and Director of Graduate Studies: R. E. Gaensslen

The master's program in Forensic Science is administered by the Department of Biopharmaceutical Sciences. The program encompasses a broad knowledge of the basic areas of forensic science laboratory disciplines (biology/biochemistry; chemistry and trace evidence analysis; drug identification and toxicology; and pattern evidence) with emphasis on the integration of analytical and interpretative skills. The role of forensic laboratory sciences in justice system processes is an integrating theme. There is an opportunity for some specialization through the selection of electives and/or through the residency option.

Admissions Requirements

In addition to the Graduate College minimum requirements, applicants must meet the following program requirements:

Master of Science

- **Baccalaureate Field** BS in physical, biological, or pharmaceutical sciences (chemistry recommended). Minimum of one semester analytical chemistry and one semester physical chemistry. Instrumental analysis, biochemistry, and additional physical chemistry desirable.

- **Grade Point Average** At least 3.00/4.00 overall. Applications are strengthened by 3.25/4.00 overall GPA and 3.00/4.00 GPA in core science and mathematics courses.
- **Tests Required** GRE General Test; applications are strengthened by scores corresponding to 65th percentile or higher in verbal, quantitative, and analytical writing.
- **Minimum TOEFL Score** 600 (paper-based); 250 (computer-based); 80, with subscores of Reading 19, Listening 17, Speaking 20, and Writing 21 (new Internet-based TOEFL). Recommended score of 87, with subscores of Reading 21, Listening 21, Speaking 23, and Writing 22.
- **Letters of Recommendation** Three required.
- **Personal Statement** Required.

Degree Requirements

In addition to the Graduate College minimum requirements, students must meet the following program requirements:

Master of Science

- **Minimum Semester Hours Required** 36.
- **Course Work Required Courses:** BPS 580, 581, 582, 583, 584, and 588.
- **Electives:** 9–12 semester hours that may be selected in the student's area of interest; may include 2–4 hours of internship (BPS 592), or up to 12 hours of residency (BPS 590) for those interested and who are accepted by the host agencies.
- **Comprehensive Examination** Required for students choosing to fulfill the research requirement with BPS 597.
- **Thesis, Project, or Course-Work-Only Options** Thesis or project. No other options are available.
- **Thesis:** Thesis students must earn at least 6 hours in BPS 598.
- **Project:** Project students must earn 3 hours in BPS 597. Those electing the project option must also take a comprehensive exam.

MEDICINAL CHEMISTRY

Mailing Address:

Department of Medicinal Chemistry and Pharmacognosy (MC 781)
833 South Wood Street
Chicago, IL 60612-7231

Campus Location: 539 PHARM

Program Codes: 20FS1454MS (MS)

20FS1454PHD (PhD)

Telephone: (312) 996-7245

Fax: (312) 996-7107

E-mail: medchem@uic.edu, fitzloff@uic.edu

Web Site: http://www.uic.edu/pharmacy/depts/Medicinal_Chemistry_and_Pharmacognosy/index.php

Head of the Department: Judy Bolton

Director of Graduate Studies: John F. Fitzloff

The Department of Medicinal Chemistry and Pharmacognosy offers work leading to degrees in Medicinal Chemistry at both the master's and doctoral levels. Medicinal chemistry is focused on the discovery and development of biologically active agents with potential therapeutic application. The program offers concentrations in Analytical and Chemical Toxicology, Biomedical Chemistry, Computational Medicinal Chemistry, Structural Biology, and Synthetic Medicinal Chemistry. Medicinal chemistry also participates in a joint PharmD/

PhD program; see the *Joint PharmD/PhD* information in this section of the catalog. The department also offers a graduate program in Pharmacognosy; consult *Pharmacognosy* in this section of the catalog for more information on that program.

Admission Requirements

In addition to the Graduate College minimum requirements, applicants must meet the following program requirements:

Master of Science and Doctor of Philosophy

- **Baccalaureate Field** Pharmacy, chemistry, or the biological sciences. Prior academic work should include a year each of biology or biochemistry and organic chemistry. (**Note:** No financial support is offered to applicants to the MS program.)
- **Grade Point Average** At least 3.00/4.00 for the final 60 semester (90 quarter) hours of baccalaureate study.
- **Tests Required** GRE General. The GRE Advanced Chemistry or Biology test is recommended.
- **Minimum TOEFL Score** 550 (paper-based); 213 (computer-based); 80, with subscores of Reading 19, Listening 17, Speaking 20, and Writing 21 (new Internet-based TOEFL).
- **Letters of Recommendation** Three required.
- **Personal Statement** Required.

Degree Requirements

In addition to the Graduate College minimum requirements, students must meet the following program requirements:

Master of Science

- **Minimum Semester Hours Required** 32. At least 16 semester hours must be completed in didactic courses.
- **Course Work Required Core Courses:** GCLS 501; MDCH 561; 4 hours of MDCH 592; 2 hours of MDCH 595 (one hour literature seminar and one hour thesis seminar); plus a minimum of 6 additional hours of required concentration and elective courses. Students must select one of five concentrations: Analytical and Chemical Toxicology, Biomedical Chemistry, Computational Medicinal Chemistry, Structural Biology, or Synthetic Medicinal Chemistry.
- **Required Concentration Courses:**
 - Analytical and Chemical Toxicology—MDCH 412, 562, 571.
 - Biomedical Chemistry—GCLS 502; MDCH 412.
 - Computational Medicinal Chemistry—MDCH 572.
 - Structural Biology—BCMG 513, MDCH 564.
 - Synthetic Medicinal Chemistry—MDCH 560, 562, 564, 571, 573.
- **Recommended Electives:**
 - Analytical and Chemical Toxicology—Elective courses selected in consultation with the student's advisor. Suggested electives include GCLS 502; MDCH 572, 585, 594; PCOL 430.
 - Biomedical Chemistry—Elective courses selected in consultation with the student's advisor. Suggested electives include BCMG 513, 561, 563; GCLS 503, 504, 505; MDCH 562, 572, 594; MIM 554.
 - Computational Medicinal Chemistry—Elective

courses selected in consultation with the student's advisor. Suggested electives include BCMG 513; BSTT 400; CHEM 542, 558; CS 559; 560; GCLS 502; MDCH 594.

- **Structural Biology**—Elective courses selected in consultation with the student's advisor. Suggested electives include CHEM 552, 553, 554, 558; GCLS 502; MDCH 562, 571, 572, 594.
- **Synthetic Medicinal Chemistry**—Elective courses selected in consultation with the student's advisor. Suggested electives include CHEM 532, 533, 535, 552; MDCH 572, 594.
- **Thesis, Project, or Course-Work-Only Options**
Thesis and oral defense required. No other options are available. Students must complete at least 5 semester hours in MDCH 598.

Doctor of Philosophy

- **Minimum Semester Hours Required** 96 from the baccalaureate.
- **Course Work** *Required Core Courses:* GCLS 501; MDCH 561; 4 hours of MDCH 592; 2 hours of MDCH 595 (1-hour literature seminar and 1-hour thesis seminar); and a minimum of 11 additional hours of required concentration and elective courses. Students must select one of five concentrations: Analytical and Chemical Toxicology, Biomedical Chemistry, Computational Medicinal Chemistry, Structural Biology, or Synthetic Medicinal Chemistry.
- *Required Concentration Courses:*
 - Analytical and Chemical Toxicology—MDCH 412, 562, 571.
 - Biomedical Chemistry—GCLS 502; MDCH 412.
 - Computational Medicinal Chemistry—MDCH 572.
 - Structural Biology—BCMG 513; MDCH 564.
 - Synthetic Medicinal Chemistry—MDCH 560, 562, 564, 571, 573.
- *Recommended Electives:*
 - Analytical and Chemical Toxicology—Elective courses selected in consultation with the student's advisor. Suggested electives include MDCH 572, 585, 594; PCOL 430.
 - Biomedical Chemistry—Elective courses selected in consultation with the student's advisor. Suggested electives include BCMG 513, 561, 563; GCLS 503, 504, 505; MDCH 562, 572; 594; MIM 554.
 - Computational Medicinal Chemistry—Elective courses selected in consultation with the student's advisor. Suggested electives include BCMG 513; BSTT 400; CHEM 542, 558; CS 559, 560; GCLS 502; MDCH 594.
 - Structural Biology—Elective courses selected in consultation with the student's advisor. Suggested electives include CHEM 552, 553, 554, 558; GCLS 502; MDCH 562, 571, 572, 594.
 - Synthetic Medicinal Chemistry—Elective courses selected in consultation with the student's advisor. Suggested electives include CHEM 532, 533, 535, 552, 553; MDCH 594.
- **Examinations** *Departmental Qualifying and Preliminary Examination:* Required. Passing this examination permits doctoral students to bypass the formal requirement of writing a master's thesis.

Good academic standing required for eligibility to take the examination. The exam is given following completion of the second semester of required course work.

- **Dissertation** Required; including oral defense.
- **Other Requirements** All candidates must assist in teaching one or more of the courses offered by the College of Pharmacy or the department. Minimum of 70 semester hours of MDCH 599.

Students applying to the department for the 2009–2010 academic year are encouraged to check the Web site for program updates http://www.uic.edu/pharmacy/depts/Medicinal_Chemistry_and_Pharmacognosy/index.php.

PHARMACOGNOSY

Mailing Address:
Pharmacognosy Program (MC 781)
College of Pharmacy
833 South Wood Street
Chicago, IL 60612-7231

Campus Location: 539 PHARM
Program Codes: 20FS1563MS (MS)
20FS1563PHD (PhD)

Telephone: (312) 996-7253

E-mail: Pharmacognosy@uic.edu

Web Site: <http://www.uic.edu/pharmacy/depts/pmch/fullframe.html>

Director of the Program: Norman R. Farnsworth
Director of Graduate Studies: Steven M. Swanson

The Department of Medicinal Chemistry and Pharmacognosy offers a program of study leading to degrees in Pharmacognosy at both the master's and doctoral levels. Major research areas concern the isolation, structure elucidation, and bioassay of natural products, including plant and microbial constituents having biological activity, the use and conservation of plants employed in traditional medicine, the fundamental mechanisms of biological activity of potential drugs and their targets both in vitro and in vivo, structure and function of cellular enzymes, microbial genomics, and rational drug design. Pharmacognosy participates in a joint PharmD/PhD program; see the *Joint PharmD/PhD* section of the catalog for more information. The department also offers work leading to graduate degrees in Medicinal Chemistry; consult the appropriate section of the catalog for more information.

Admission Requirements

Applicants are considered on an individual basis. In addition to the Graduate College minimum requirements, applicants must meet the following program requirements:

Master of Science and Doctor of Philosophy

- **Baccalaureate Field** Chemistry or the biological sciences. Prior academic work should include a year each of biology and/or biochemistry, and organic chemistry.
- **Grade Point Average** At least 3.00/4.00 for the final 60 semester (90 quarter) hours of undergraduate study.
- **Tests Required** GRE General.
- **Minimum TOEFL Score** 550 (paper-based); 213 (computer-based); 80, with subscores of Reading 19, Listening 17, Speaking 20, and Writing 21 (new Internet-based TOEFL).
- **Letters of Recommendation** Three required.
- **Personal Statement** Required.
- **Other Requirements** PhD applicants strongly preferred.

Degree Requirements

In addition to the Graduate College minimum requirements, students must meet the following program requirements:

Master of Science

- **Minimum Semester Hours Required** 32.
- **Course Work** At least 16 hours must be in didactic courses.
- **Required Courses:** PMPG 480, 510, and one hour of 595.
- **Comprehensive Examination** None.
- **Thesis, Project, or Course-Work-Only Options** Thesis required. No other options are available.
- **Other Requirements** Candidates must assist in one or more of the courses offered by the college or the department.

Doctor of Philosophy

- **Minimum Semester Hours Required** 96 from the baccalaureate.
- **Course Work** At least 26 semester hours must be in didactic courses.
- **Required Courses:**
 - PMPG 507 and two hours of PMPG 595. Students must select one of four concentrations: Natural Product Drug Discovery, Medical Ethnobotany, Biomedical and Molecular Toxicology, or Pharmaceutical Biotechnology.
- **Concentration-Specific Required Courses:**
 - Natural Product Drug Discovery—PMPG 510, 511, 515, 516, 521, 590, and 592.
 - Medical Ethnobotany—EPID 410; PMPG 511, 517, 518, 520, 590, and 592.
 - Biomedical and Molecular Toxicology—GCLS 501; PCOL 430, 508; PMPG 590, 592.
 - Pharmaceutical Biotechnology—GCLS 501, 502, 504/505; PMPG 522, 523.
- **Electives:**
 - Natural Product Drug Discovery—Minimum of 10 hours, selected in consultation with the student's advisor. Suggested electives are: GCLS 501; MDCH 562, 573; PMPG 515, 517, 521, 540, 565, 569.
 - Medical Ethnobotany—Minimum of 4 hours, selected in consultation with the student's advisor. Suggested electives are ANTH 415, 594; BIOS 539, 594; CHSC 450, 554; PMPG 534, 565, 569.
 - Biomedical and Molecular Toxicology—Minimum of 11 hours, selected in consultation with the student's advisor. Suggested electives are GCLS 502, 503, 515, 521; MDCH 412, 561, 562, 571, and 594; NUSC 525; PMPD 561, 562.
 - Pharmaceutical Biotechnology—Minimum of 10 hours, selected in consultation with the student's advisor. Suggested electives are BIOS 524, 525; GCLS 503, 515, 521; BCMG 513, 514; MDCH 412, 562, 564.
- **Examinations** *Departmental Qualifying Examination:* Not required.
- **Preliminary Examination:** Required; written and oral. Passing this examination permits doctoral students to bypass the formal requirement of writing a master's thesis.
- **Dissertation** Required; including oral defense.
- **Other Requirements** Candidates must assist in one or more of the courses offered by the college or the department.

PHARMACY

Mailing Address:
College of Pharmacy (MC 871)
833 South Wood Street
Chicago, Illinois 60612-7231

Campus Location: 241 PHARM
Program Codes: 20FS1568MS (MS)
20FS1568PHD (PhD)

Telephone: (312) 413-1337

E-mail: crawford@uic.edu

Web Site: http://www.uic.edu/pharmacy/depts/pharmacy_administration/graduate_programs/index.php

Director of Graduate Studies: Stephanie Crawford

The College of Pharmacy offers work leading to a graduate degree in Pharmacy at both the master's (MS) and doctoral (PhD) levels. The general area of focus is pharmacy administration, i.e., the social, behavioral, and economic pharmaceutical sciences. **Note:** These pharmacy graduate degrees are research degrees, not practice degrees. Students who wish apply to the professional degree program in Pharmacy, see requirements for the UIC Doctor of Pharmacy (PharmD) program on the Web <http://www.uic.edu/pharmacy/>. Pharmacy (Administration) also participates in a joint PharmD/PhD program; see the *Joint PharmD/PhD* section of the catalog.

Admission Requirements

Transcripts of all undergraduate and any graduate work must be submitted. In addition to the Graduate College minimum requirements, applicants must meet the following program requirements:

Master of Science and Doctor of Philosophy

- **Prior Degrees** Baccalaureate or doctorate in pharmacy or a related field.
- **Grade Point Average** At least 3.00/4.00 in work for the first academic degree.
- **Tests Required** GRE General.
- **Minimum TOEFL Score** 600 (paper-based); 250 (computer-based); 90, with subscores of Reading 21, Listening 21, Speaking 23, and Writing 22 (new Internet-based TOEFL). Minimum TOEFL scores are subject to change.
- **Letters of Recommendation** Three (master's) or four (doctoral) required from individuals who are familiar with the applicant's training, ability, character, and potential for successful completion of the program.
- **Personal Statement** Required; 1–2 pages. The statement should address the applicant's educational and professional objectives.
- **Other Requirements** Applicants to the PhD program must have completed a relevant master's degree prior to matriculation in the doctoral program.

Degree Requirements

In addition to the Graduate College minimum requirements, students must meet the following program requirements:

Master of Science

- **Minimum Semester Hours Required** 42.
- **Course Work** *Required Core Courses:* EPSY 503; HPA 463; MGMT 541; PMAD 507, 510, 595; SOC 500.
- **Comprehensive Examination** None.
- **Thesis, Project, or Course-Work-Only Options** Thesis required. No other options are available.
- **Thesis:** Students must earn 6 hours in PMAD 598.

Doctor of Philosophy

- **Minimum Semester Hours Required** 96 from the baccalaureate, 64 from the master's.
- **Course Work** At least 20 hours must be in 500-level didactic courses.
- **Required Core Courses:** HPA 463; PMAD 482, 500, 507, 510, 516, 525, 535, 571, 595, and one PMAD elective; PSCH 443, 543, 545; SOC 500.
- **Examinations** *Departmental Qualifying Examination:* Required for Pharmacy Administration students only.
- *Preliminary Examination:* Required.
- **Dissertation** Required.
- **Other Requirements** Students must demonstrate satisfactory proficiency in written and verbal communications and in the use of computer technology, according to the specifications developed for their area.

JOINT PHARM D/PH D PROGRAM

The college invites highly qualified pharmacy students who are interested in both the clinical aspects of pharmacy and pharmaceutical sciences research to consider the joint PharmD/PhD program. The joint program permits a student to combine the PharmD with any of the PhD programs offered in the college: Biopharmaceutical Sciences, Medicinal Chemistry, Pharmacognosy, and Pharmacy (Pharmacy Administration). This makes it possible for students to earn both degrees more quickly than would be possible if each were done separately.

Students already attending the UIC PharmD program may apply for the joint program following the requirements stated below. Students wishing to apply for the joint program at the same time they apply to Pharmacy School should: (1) follow the procedures for applying to the PharmD program; and (2) follow the procedures below for applying to the desired PhD program.

Application Procedure

The following materials should be submitted to the director of graduate studies for the PhD program to which the student wishes to apply:

- *Biopharmaceutical Sciences:* Dr. Richard A. Gemeinhart, Room 335 PHARM, bpsdgs@uic.edu.
- *Medicinal Chemistry:* Dr. John Fitzloff, Room 539 PHARM, fitzloff@uic.edu.
- *Pharmacognosy:* Dr. Steven Swanson, Room 302 PHARM, swanson@uic.edu.
- *For the Pharmaceutical Biotechnology track in the PhD Pharmacognosy program:* Dr. Alexander Mankin, Room 3052 MBRB, shura@uic.edu.
- *Pharmacy (Administration):* Dr. Stephanie Crawford, Room 258 PHARM, crawford@uic.edu.

Doctor of Pharmacy/Doctor of Philosophy

- **Transcripts** Official copies of all prior college work, including the applicant's PharmD program record (if applicable).
- **Test Scores** GRE General Test. The PhD program in Medicinal Chemistry recommends taking and reporting a score for the GRE Advanced Test in Chemistry or Biology.
- **Letters of Recommendation** Three required from individuals who can comment knowledgeably on the applicant's academic abilities and research potential.
- **Statement of Purpose** One page in length, setting forth the basis for applicant's interest in the joint

degree program, amplifying on the applicant's qualifications for admission to the particular PhD program, and explaining how completion of the PharmD and the PhD fits into overall educational and career goals.

- **Deadlines** Contact PhD program for the applicable deadline.

PROFESSIONAL PROGRAM PHARMACY

Mailing Address:

College of Pharmacy
Office of the Dean (MC 874)
833 South Wood Street
Chicago, IL 60612

Campus Location: 145 PHARM

Telephone: (312) 996-7242

E-mail: pharmosa@uic.edu

Web Site: <http://www.uic.edu/pharmacy/>

Dean: Jerry L. Bauman

Executive Associate Dean: Janet P. Engle

Associate Dean for Academic Affairs: Janet P. Engle

Assistant Dean for Academic Affairs: Susan L. Peverly

Associate Dean for Business Development and

Administrative Affairs: James D. Bono

Associate Dean for Research and Graduate Education:

William T. Beck

Associate Dean for Student Affairs: Thomas TenHoeve III

Assistant Deans for Student Affairs: Debra Agard, Jean

M.B. Woodward

Assistant Dean for Urban Affairs: Clara Awe

Departments:

Head, Department of Biopharmaceutical Sciences: William T. Beck

Head, Department of Medicinal Chemistry and Pharmacognosy: Judy L. Bolton

Head, Department of Pharmacy Administration: Nicholas G. Popovich

Acting Head, Department of Pharmacy Practice: Janet P. Engle

The College of Pharmacy offers the Doctor of Pharmacy degree. The PharmD is the highest level of professional education in pharmacy and has been approved by the Accreditation Council for Pharmacy Education (ACPE) <http://www.acpe-accredit.org/> as the sole entry-level degree for the profession.

The PharmD curriculum at UIC emphasizes a patient-centered course of study and provides a structure that will enable our students to develop into reflective practitioners with skills and attitudes to anticipate change, criticize, evaluate, and modify practice in a changing healthcare arena. The curriculum also provides a fundamental core of knowledge, skills, and attitudes, which in composite, promote the fulfillment of the adopted professional competencies for a generalist practitioner who delivers pharmaceutical care.

The program prepares students to:

- enter into the practice of pharmacy to serve society as ethical and caring professionals;
- apply knowledge of drugs and drug therapy to solve problems and make decisions on behalf of their patients;
- educate, communicate, and collaborate with patients, colleagues, and other health professionals;
- learn—professional practice is a lifelong learning experience;
- practice pharmacy in traditional and nontraditional settings;

- assume a leadership role in the future direction of the profession.

To earn the Doctor of Pharmacy degree, students complete a minimum of six years of study: the first two years of pre-pharmacy course work can be accomplished at any accredited college or university, the final four years of professional education are completed at the UIC College of Pharmacy. The prospective applicant is advised to contact the Office of Student Affairs (OSA) at the College of Pharmacy for further information at (312) 996-7242 or to obtain information at the OSA Web site: http://www.uic.edu/pharmacy/student_affairs.

The Doctor of Pharmacy is a professional degree program. For more information on the PharmD program and the application process, please consult the following Web sites:

- Information for prospective students, including pre-pharmacy course work and admission requirements: http://www.uic.edu/pharmacy/student_affairs/prospective_students/index.php
- PharmD curriculum outline: http://www.uic.edu/pharmacy/academic_affairs/Curriculum/Curriculum_Outline.php
- Information for current students, including advising and the *Student Handbook*: http://www.uic.edu/pharmacy/student_affairs/current_students/index.php
- Information on Pharmacy careers and jobs: http://www.uic.edu/pharmacy/student_affairs/careers_jobs.php