



Twin Cities Campus

Pharmaceutics M.S.

Graduate Studies in Pharmaceutics

College of Pharmacy

Link to a [list of faculty](#) for this program.

Contact Information:

Department of Pharmaceutics
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- Program Type: Master's
- Requirements for this program are current for Fall 2018
- Length of program in credits: 30
- This program requires summer semesters for timely completion.
- Degree: Master of Science

Along with the program-specific requirements listed below, please read the [General Information](#) section of the catalog website for requirements that apply to all major fields.

Note: Entry to the MS program is available on a restricted basis. Please contact the director of graduate studies to obtain details about admission.

The Pharmaceutics program offers emphases in physical pharmacy, biopharmaceutics, and pharmacokinetics.

Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

Prerequisites for Admission

The preferred undergraduate GPA for admittance to the program is 3.20.

Other requirements to be completed before admission:

Undergraduate (and graduate, if applicable) scholastic records, recent GRE scores (with a preferred minimum 80% quantitative reasoning score and 3.5 analytical writing score), a statement of career goals and research interests, and three letters of recommendation.

International applicants must submit results from the TOEFL (with a preferred minimum 100 total score and 23 speaking score, and a required minimum 21 writing score and 19 reading score) or IELTS (with a required minimum 6.5 total score, 6.5 reading score, and 6.5 writing score). Prefer "First Class" or the equivalent on transcripts from foreign institutions.

All of the above are collectively used to determine each candidate's admissibility. Fall admission is preferred and the deadline to apply is November 30.

Applicants must submit their test score(s) from the following:

- GRE

International applicants must submit score(s) from one of the following tests:

- TOEFL
- IELTS

The preferred English language test is Test of English as Foreign Language

Key to [test abbreviations](#)(GRE, TOEFL, IELTS).



For an online application or for more information about graduate education admissions, see the [General Information](#) section of the catalog website.

Program Requirements

Plan A: Plan A requires 14 major credits, 6 credits outside the major, and 10 thesis credits. The final exam is oral.

This program may not be completed with a minor.

Use of 4xxx courses toward program requirements is permitted under certain conditions with adviser approval.

A minimum GPA of 3.00 is required for students to remain in good standing.

Required Courses

Pharmaceutics Modules

Register for 2 credits of PHM 8295 in the fall and spring for a total of 4 credits.

[PHM 8295](#) - Research Problems in Pharmaceutics (1.0 - 12.0 cr)

Pharmaceutics Graduate Courses: 84xx

Choose 1 of the following courses:

[PHM 8421](#) - Advanced Pharmacokinetics (4.0 cr)

or [PHM 8431](#) - Controlled Drug and Gene Delivery: Materials, Mechanisms, and Models (4.0 cr)

or [PHM 8441](#) - Solubility and Solid-State Properties of Drugs (4.0 cr)

or [PHM 8481](#) - Advanced Neuropharmaceutics (4.0 cr)

Required Background

Complete this requirement by taking one of the following courses. If PHAR 6726 or 6762 is chosen, or if the faculty accepts previous experience in lieu of background courses, additional elective coursework may be required to meet minimum credit requirements.

[PHCL 5110](#) - Introduction to Pharmacology (3.0 cr)

or [PHAR 6726](#) - Principles of Pharmacology (2.3 cr)

or [PHAR 6762](#) - Medicinal Chemistry and Neuropharmacology (2.8 cr)

Electives

Take at least 3 elective credits, in consultation with the advisor, to meet minimum credit requirements. Electives can be from inside or outside the major.

Outside Courses

Take at least 6 credits outside the major, in consultation with the advisor.

Thesis Credits

A total of 10 thesis credits is required.

[PHM 8777](#) - Thesis Credits: Master's (1.0 - 18.0 cr)