

Master of Science in Pharmaceutical Chemistry

Pharmaceutical Chemistry Graduate Programs

Pharmaceutical Chemistry is a broad discipline that integrates diverse areas of science ranging from biological to chemical sciences. Students in the program will become familiar with aspects of physical, organic and analytical chemistry, chemical kinetics, biopharmaceutics and pharmacokinetics, and biotechnology including vaccines. To address these needs, the department offers a series of eight (8) core courses designed to hone the student's skills in these topical areas, which are considered essential in understanding problems of biological, biophysical and chemical processes at the molecular level. Every student entering the program is expected to complete the core courses during the first three semesters of graduate study. Refer to the website (<http://pharmchem.ku.edu/academics-overview>) then consult the links Coursework Research Overview and Department Graduate Student Handbook for details. Students can choose from a variety of elective courses that allow them to gain knowledge and skills in areas specific to individual research project interests. The department places emphasis on excellence in research making every effort to ensure that students can maximize efforts on their research projects toward earning the Ph.D. degree in a timely fashion.

Students are primarily admitted to the department to pursue the Ph.D. degree, however students may opt to terminate graduate studies with the M.S. degree. For external students seeking an advanced degree, the department offers the distance M.S. and Ph.D. degrees. To be eligible for the distance programs, the students must be employed in the private or government sectors, meeting the same requirements as on-site students, have access to laboratory facilities and the availability of an appropriately trained scientific advisor at the remote site. The distance Ph.D. program is only available to students who have completed the distance M.S. degree with a highly meritorious performance.

Graduate Admission

Students with a bachelor level degree or a master's degree in chemistry, pharmacy, the biological sciences, material sciences, chemical engineering or related disciplines are encouraged to seek admission to our program. Except under unusual circumstances, we review and accept candidates for admission into the fall semester only. All information must be delivered to us before we can begin to consider your application. Entering students are expected to be competent in basic principles of organic chemistry, physical chemistry and two semesters of calculus equivalent to KU MATH 121/122.

Refer to the website (<http://pharmchem.ku.edu/academics-overview>) then consult the link Admissions and Requirements, then the sub-link Admissions Requirements for details. Although the department does not have a formal application deadline, the faculty begins evaluations of applications around January 15 each year. To ensure full consideration, it is highly

recommended that complete applications be in the department far in advance of **January 15**.

Admitted students receive a competitive stipend, tuition, and basic health insurance. Students also can be selected to participate in the Takeru Higuchi and Nigel Manning Ph.D. Intersearch Program, allowing them to conduct a portion of their research at the Victorian College of Pharmacy (<http://www.vcp.monash.edu.au> (<https://www.monash.edu/pharm/>)) at Monash University in Melbourne, Australia. In addition, students are encouraged to participate in other industrial and/or academic internship programs the department offers.

A number of fellowship awards are offered to recognize academic superiority and to assist meritorious students in the timely completion of their degree programs. The number of fellowships awarded each year depends upon available funds. For a description of funding opportunities for KU graduate students, visit the Graduate Studies website (<https://graduate.ku.edu/funding> (<https://graduate.ku.edu/funding/>)). Students with particularly outstanding undergraduate records may be eligible for special awards. The Department of Pharmaceutical Chemistry is a Madison and Lila Self Graduate Fellowship Program (<http://selfgraduate.ku.edu> (<http://selfgraduate.ku.edu/>)) partner at KU. The program provides a generous stipend and tuition to outstanding students for 4 years of graduate study. At the department level, the Higuchi, Lindenbaum, Rytting, Stella, and Waugh Fellowships are awarded each year to incoming graduate students with high promise.

Any materials sent directly to the department should be directed to:

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Department of Pharmaceutical Chemistry
Attn: Michelle Huslig
Simons Labs
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Lawrence, KS 66047
Telephone: 785-864-4822, fax: 785-864-5736, mrhuslig@ku.edu

M.S. Degree Requirements

Except under unusual circumstances, the Department of Pharmaceutical Chemistry does not recruit students seeking the M.S. degree; however after admission to the Ph.D. program, the student may select to terminate with the M.S. degree. For this option, the student must have satisfactorily completed most of the core courses and sufficient research to support an M.S. thesis and oral defense. Alternatively, provision may be made for the preparation of an extensive research report based on laboratory investigations, which is presented in an oral examination.

Distance Master's Degree Program

The department also offers a distance master's program. See the website (<http://pharmchem.ku.edu/admissions-requirements-ms> (<http://pharmchem.ku.edu/admissions-requirements-ms/>)) for details. To be eligible for the M.S. distance program, the student must be employed in the private or government sectors, meeting the same requirements as on-site students, have access to laboratory facilities and the availability of an appropriately trained scientific advisor at the remote site. This program features the same high-quality lectures and courses offered in the on-campus M.S./Ph.D. program but allow students to complete the degree while working at a remote location. Students typically take 1 course a semester. All courses offered by the department can be taken this way.

For questions, contact the director of the distance master's program, John Stobaugh, 785-864-3996, stobaugh@ku.edu.

At the completion of this program, students will be able to:

- Acquire & Demonstrate Core Knowledge.
- Demonstrate Background Knowledge.
- Demonstrate Writing Skills.
- Demonstrate Oral Communication Skills.
- Execute Data Analysis Skills.
- Exhibit Critical Thinking.