

Master of Science in Chemistry

Why study chemistry?

At KU Chemistry, we have faculty dedicated to mentoring both undergraduate and graduate students and to helping each student achieve scientific maturity. In addition to required classroom and laboratory courses, options exist for doing research in exciting areas of mainstream chemistry, including emerging fields of microfluidics, precision medicine and sustainable catalysis.

Graduate Program

For a student wishing to earn a **Doctor of Philosophy (Ph.D.)** degree or a **Master's of Science (M.S.)** degree in chemistry, the selection of a graduate school is one of the most important career decisions you will make. Your choice will not only determine where you will be during the next several years, but will lay the foundation for your future.

At the University of Kansas, we feel that our program provides exceptional and diverse opportunities for the student interested in a career in cutting-edge research, higher education or any one of a number of chemically related positions requiring an advanced degree. We have a department of outstanding faculty, each of whom is dedicated to providing mentoring to graduate students and guiding them during their journey from undergraduate to colleague.

Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (<http://catalog.ku.edu/graduate-studies/>) section of the online catalog.

Please consult the Departments & Programs (<http://catalog.ku.edu/liberal-arts-sciences/>) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Graduate Admission

Prerequisites

Before beginning graduate work, students should have completed a bachelor's degree in chemistry or a related field.

Application

Applications for admission are accepted online through the Office of Graduate Studies. Applications must include academic transcripts from all post-secondary schools attended, as well as recommendation letters from 3 individuals familiar with the applicant's academic background and abilities. Additional materials that are strongly recommended include Graduate Record Examination scores (GRE), a resume/CV and a personal statement describing the applicant's qualifications and reasons for pursuing a graduate degree in chemistry.

Non-native speakers of English must meet English proficiency requirements as described here (<https://gradapply.ku.edu/english-requirements/>).

Although the preferred submission deadline is December 15, applications must be received by **April 15** to be considered for admission in the fall semester.

To apply, complete the online graduate application (<https://gradapply.ku.edu/apply/>) and upload all requested documents.

Procedure

Completed applications are reviewed by a committee of faculty members from the Department of Chemistry. Offers of admission depend on favorable evaluation of the application materials and an expectation that the student will attain an undergraduate grade-point average of B or higher in chemistry and all other natural science and mathematics courses. Admission to the graduate program is contingent upon completion of a bachelor's degree in chemistry (or a related field) and all other general admission requirements.

M.S. Degree Requirements

Each M.S. candidate must complete the following course requirements:

1. Distribution Requirement: Each student must complete (with a B or higher) a distribution requirement consisting of two courses selected from the following list of introductory courses in the 5 major areas of study:

Code	Title	Hours
CHEM 720	Fundamentals and Methods of Analytical Chemistry	3
CHEM 730	Coordination and Organometallic Chemistry	3
CHEM 740	Principles of Organic Reactions	3
CHEM 750	Introduction to Quantum Mechanics	3
CHEM 760	Introduction to Chemistry in Biology	3

2. Complete CHEM 700 (Responsible Scholarship in the Chemical Sciences) and CHEM 701 (Laboratory Safety in the Chemical Sciences) with a B or higher.
3. Complete with a B or higher 4 courses at the 700 level or above in chemistry or a related area. The list of courses to be completed must be agreed upon by the student and the student's research advisor and approved by the Graduate Affairs Committee before the beginning of the student's second semester in the program. (Changes to the list can only be made with the approval of the student, the research advisor, and the Graduate Affairs Committee.) **Note:** these 4 courses represent a minimal set and do not preclude the student, with consultation of the research advisor, from taking additional courses in support of the research effort.

The minimum total credit hours required for the master's degree is 30.

The candidate for the master's degree must complete a thesis that does not exceed one-third of the credit hours and demands the solution of some research problem in chemistry. The remaining work may consist of additional specialized courses in chemistry or in related fields such as physics, mathematics, microbiology, biochemistry, or chemical engineering. Students completing a master's thesis in chemical education must take EPSY 715 Understanding Research in Education and EPSY 710 Introduction to Statistical Analysis. Courses from outside the department cannot be from more than 2 departments.

At the time of the completion of the thesis, a candidate for the master's degree must pass an oral thesis defense (examination) administered by a committee of three members of the department's Graduate Faculty.