Twin Cities Campus

Chemistry M.S.

Chemistry

College of Science and Engineering

Link to a list of faculty for this program.

Contact Information:
Assistant to the Director of Graduate Studies, Department of Chemistry, University of Minnesota, 137 Smith Hall, 207 Pleasant St SE, Minneapolis, MN 55455 (612-626-7444 or 1-800-777-2431; fax: 612-626-7541)
Email: chmapply@umn.edu
Website: http://www.chem.umn.edu

- Program Type: Master's
- Requirements for this program are current for Spring 2020
- Length of program in credits: 30
- This program does not require 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.

While modern research in chemistry is very interdisciplinary, graduate work in the Department of Chemistry falls broadly into the focus areas of analytical chemistry, chemical biology, environmental chemistry, inorganic chemistry, materials chemistry, organic chemistry, polymer chemistry, experimental physical chemistry, and computational chemistry.

Program Delivery

This program is available:

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

Prerequisites for Admission

An undergraduate degree in chemistry or a related field is required for admission. The preferred minimum undergraduate GPA for admittance to the program is 3.20.

Other requirements to be completed before admission:
Applicants must offer the substantial equivalent of the courses in analytical, inorganic, organic, and physical chemistry that are required of undergraduate majors in the University of Minnesota chemistry curriculum. They must also have at least one year of college physics, plus college mathematics through calculus.

Three letters of recommendation and scores from the GRE general test are required for all applications. International applicants are expected to provide scores of at least 587 (paper), 240 (computer), or 95 (Internet) on the TOEFL, as well as GRE scores.

A Subject GRE score is not required but if available will help the admission committee to make better decisions, in particular in cases where undergraduate transcripts are more difficult to evaluate (which is especially true for international applicants, who are strongly encouraged to submit the GRE subject score). The Subject GRE can be taken in chemistry or a related discipline.

Special Application Requirements:
Applications for fall semester must be completed by December 15 in order to be considered for fellowship support and teaching and research assistantships. Applications received after December 15 will be reviewed on a space available basis. The department prefers to admit for fall semester and will only consider spring admission under extenuating circumstances. More information is available at chem.umn.edu/academics/graduate/prospective-students

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

- GRE

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

- TOEFL
  - Internet Based - Total Score: 95
  - Internet Based - Speaking Score: 23
- IELTS
  - Total Score: 7

- MELAB
  - Final score: 83

Key to test abbreviations(GRE, TOEFL, IELTS, MELAB).

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 20 major credits, up to null credits outside the major, and 10 thesis credits.The final exam is oral.

Plan B: Plan B requires 30 major credits and up to null credits outside the major.The final exam is written. A capstone project is required.
Capstone Project: Each Plan B project should involve a combined total of approximately 160 hours (the equivalent of four full-time weeks) of library research, reading, and/or writing resulting in the preparation of a significant written document. Students who plan to work on Plan B projects independent of the Preliminary Examination should present a plan, after consultation with the chosen instructor for the Plan B project, outlining the number and content of their projects to the director of Graduate Studies. Projects should be completed to the satisfaction of the instructor; the final grade is determined by the instructor.

Plan C: Plan C requires 30 major credits and up to null credits outside the major.The is no final exam.

This program may be completed with a minor.

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

A minimum GPA of 2.80 is required for students to remain in good standing.

MS students are expected to pass a proficiency exam during their first academic year in residence.

All first-year students must register for CHEM 8601 during both fall and spring semesters and for CHEM 8066 during the spring semester of their first year in residence.

All CHEM courses must be taken at the 5xxx or 8xxx level. Up to 8 credits in 4xxx-level courses from another department may be used with approval from the director of graduate studies.

Required Courses

Any 8xxx-level CHEM course can be used to satisfy degree requirements. Chem 5210 and 5755 will be accepted or consult with advisor for further 5xxx level course options.
Students may count one credit each of the following towards the degree.
CHEM 8066 - Professional Conduct of Chemical Research (1.0 cr)
CHEM 8601 - Seminar: Modern Problems in Chemistry (1.0 cr)

Plan A

Plan A requires 20 course credits and 10 thesis credits.
CHEM 8777 - Thesis Credits: Master's (1.0 - 18.0 cr)

Plan B

Plan B requires 30 credits of coursework, including 8 credits in the two Plan B project courses.
CHEM 8081 - M.S. Plan B Project I (1.0 - 4.0 cr)
CHEM 8082 - M.S. Plan B Project II (1.0 - 4.0 cr)

Plan C

Plan C requires 30 course credits chosen in consultation with advisor.