

CHEMISTRY, MS

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum degree requirements (<https://guide.wisc.edu/graduate/#requirements>) and policies (<https://guide.wisc.edu/graduate/#policies>), in addition to the program requirements listed below.

MAJOR REQUIREMENTS MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Accelerated: Accelerated programs are offered at a fast pace that condenses the time to completion. Students typically take enough credits aimed at completing the program in a year or two.

Evening/Weekend: Courses meet on the UW-Madison campus only in evenings and/or on weekends to accommodate typical business schedules. Students have the advantages of face-to-face courses with the flexibility to keep work and other life commitments.

Face-to-Face: Courses typically meet during weekdays on the UW-Madison Campus.

Hybrid: These programs combine face-to-face and online learning formats. Contact the program for more specific information.

Online: These programs are offered 100% online. Some programs may require an on-campus orientation or residency experience, but the courses will be facilitated in an online format.

CURRICULAR REQUIREMENTS

Requirement Detail	
Minimum Credit Requirement	30 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	15 credits must be graduate-level coursework. Refer to the Graduate School: Minimum Graduate Coursework (50%) Requirement policy: https://policy.wisc.edu/library/UW-1244 (https://policy.wisc.edu/library/UW-1244/).
Overall Graduate GPA Requirement	3.00 GPA required. Refer to the Graduate School: Grade Point Average (GPA) Requirement policy: https://policy.wisc.edu/library/UW-1203 (https://policy.wisc.edu/library/UW-1203/).
Other Grade Requirements	n/a

Assessments and Examinations	There are currently no assessments or examinations required by the chemistry department for the coursework-based MS degree. Research-based MS degree requires either a thesis or a written document approved by the research advisor. Students must meet all Graduate School grade requirements.
------------------------------	--

Language Requirements: None.

REQUIRED COURSES

Of the 30 credits required for the master's degree, at least 24 must be completed in the Chemistry (CHEM (<https://guide.wisc.edu/courses/chem/>)) department. The remaining 6 credits must be a STEM course, approved by your advisor. This may include courses in chemistry, physics, or other physical sciences; courses from the many biological disciplines including pharmacy- and medical-related courses; courses in engineering; or courses with a computer science, statistics, math, or computational focus. The selection of courses must be approved by the student's advisor.

Recommended Course Options

In consultation with faculty advisor, students select at least 15 credits from the following courses.

Code	Title	Credits
CHEM 641	Advanced Organic Chemistry	3
CHEM 661	Chemical and Statistical Thermodynamics	3
CHEM 613	Chemical Crystallography	3
CHEM 624	Electrochemistry	2-3
CHEM 608	Symmetry, Bonding, and Molecular Shapes	1-3
CHEM/ BIOCHEM 704	Chemical Biology	3
CHEM 721	Instrumental Analysis	3-4
CHEM 622	Organic Analysis	2
CHEM 623	Experimental Spectroscopy	2-3
CHEM 606	Physical Methods for Structure Determination	1-3
CHEM 713	Inorganic and Organometallic Chemistry of the Main Group Elements	1-3
CHEM 664	Physical Chemistry of Macromolecules	2-3
CHEM 841	Advanced Organic Chemistry	3
CHEM 675	Introductory Quantum Chemistry	3

There are two pathways leading to the Master of Science in Chemistry.

Research Master's Degree Pathway¹

The Research MS requires 30 credits, at least 15 credits from coursework, see list above, and 15 credits from research or advanced lab work. A thesis or written final report, submitted to the advisor, is also required. The research credits obtained before the student joins a research group do not satisfy degree requirements. The credits from CHEM 607 Laboratory Safety, CHEM 980 Seminar: Review of Current Research, and CHEM 901 Seminar-Teaching of Chemistry do not satisfy degree requirements.

¹ These pathways are internal to the program and represent different curricular paths a student can follow to earn this degree. Pathway names

do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Coursework Master's Degree Pathway¹

The Coursework MS requires 30 credits, at least 22 credits from coursework, see list above, and no more than 8 credits from research or advanced lab work. The research credits obtained before the student joins a research group do not satisfy degree requirements. The credits from CHEM 607 Laboratory Safety, CHEM 980 Seminar: Review of Current Research, and CHEM 901 Seminar-Teaching of Chemistry do not satisfy degree requirements.

¹ These pathways are internal to the program and represent different curricular paths a student can follow to earn this degree. Pathway names do not appear in the Graduate School admissions application, and they will not appear on the transcript.