

# CHEMISTRY - MASTER OF SCIENCE

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The Master of Science in Chemistry is offered in the major emphasis areas of analytical, inorganic, organic, and physical chemistry, and biochemistry. The M.S. degree can be obtained through either a [thesis option](#) or a [non-thesis option](#). Both options require at least 30 credits of course work. The thesis option program is designed to teach students modern approaches to chemistry and biochemistry (courses), experimental methods to problem-solving (research), and communication skills in the discipline (seminars and colloquia). All M.S. candidates are required to complete the courses below. Thesis-option students must also pass a qualifying exam at the end of the first year and a final comprehensive examination which includes a written thesis. Non-thesis option students must pass a final exam, the format and content of which will be decided by a departmental committee.

Prefix	Title	Credits
<b>Required Courses</b>		
CHEM 475	Central Concepts in Chemistry - Safety	1
CHEM 476	Central Concepts in Chemistry - Research Ethics	1
CHEM 477	Central Concepts in Chemistry - Professional Development (Required Courses)	1
CHEM 501	Central Concepts in Chemistry - Energy	3
CHEM 502	Central Concepts in Chemistry - Structure	3
CHEM 503	Central Concepts in Chemistry - Dynamics	3
CHEM 504	Central Concepts in Chemistry - Measurements	3
CHEM 510	Graduate Student Seminar <sup>1</sup>	3
CHEM 600	Research <sup>2</sup>	9
<i>Additional Graduate-level courses</i> <sup>3</sup>		3-12
<b>Total Credits</b>		<b>30-39</b>

<sup>1</sup> Only 3 credits of CHEM 510 will count toward the M.S. degree. For the thesis option, at least one credit of CHEM 510 must be taken for a letter grade of B- or better. The remaining CHEM 510 credits for the thesis option and all credits for the non-thesis option may be taken as S/U.

<sup>2</sup> Required only for thesis-option.

<sup>3</sup> Additional courses are chosen based on major emphasis area, through consultation with the thesis committee or an advisor and can include research credits.