

Degree Requirements for the B.S. in Chemistry

The B.S. in Chemistry requires at least 120 credit hours, including at least 69 credit hours of chemistry requirements (listed below in a checklist format).

General Chemistry

Course	Semester Taken	Year Taken	Credits
CHEM 111 or 121			3
CHEM 112 or 122 or 201			3
CHEM 113 or 123			1
CHEM 114 or 124 or 205			1
CHEM 110 / 220*			

*CHEM 110 or 220 is recommended (not required) of all B.S. majors prior to enrolling in CHEM 391.

Chemistry Foundation

Course	Semester Taken	Year Taken	Credits
CHEM 211 or 319			3
CHEM 301			3
CHEM 302			3
CHEM 330			3
CHEM 360			3
BIOC 301*			3

*BIOC 201 is a prerequisite for BIOC 301, but the Biosciences Department confirmed that CHEM majors are waived from the BIOC 201 prerequisite. Students need to special register for BIOC 301.

Mathematics*

Course	Semester Taken	Year Taken	Credits
MATH 101 or 105			3
MATH 102 or 106			3
MATH 212 or 222			3

*The Department of Mathematics may, after consultation with a student concerning his/her previous math preparation, recommend that a student be placed into a higher level math course than that for which the student has received official credit. The Department of Chemistry will accept this waiver of the math classes upon a written confirmation of the waiver from the Department of Mathematics and upon the student's successful completion of the higher level math course. Note: MATH 211 is encouraged for students interested in graduate study.

Physics

Course	Semester Taken	Year Taken	Credits
PHYS 101 or 111 or 125			4
PHYS 102 or 112 or 126			4

Advanced Laboratories (Complete 3 of 5)

Course	Semester Taken	Year Taken	Credits
CHEM 365			2
CHEM 366			2
CHEM 367			2
CHEM 368			2
BIOC 311			2

Research (At Least Eight Credit Hours)

Course	Semester Taken	Year Taken	Credits
CHEM 391*			
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*Normally completed before the end of junior year. Enrollment in CHEM 391 (at least 3 credits) requires advance permission. See course guide for details.

**Additional independent research or laboratory coursework in chemistry must be completed to total eight (8) credit hours (including CHEM 391). This requirement may be satisfied by taking one or more of the following: (i) CHEM 491, (ii) CHEM 492 and 493, and (iii) additional laboratory course(s) in chemistry at the 300-level or above. Up to two (2) credits of CHEM 700 may be used toward this requirement.

Advanced Course Work (Twelve Credit Hours)*

Each student must complete advanced work that satisfies one of the specialization tracks listed below. A student may, with the approval of the Director of the Undergraduate Program, propose a track in another specialization. See the General Announcements for details.

Course	Semester Taken	Year Taken	Credits

Specialization in Biological and Medicinal Chemistry

CHEM 212/CHEM 320, BIOC 302, Six (6) additional credit hours

Specialization in Inorganic Chemistry and Inorganic Materials

CHEM 475, CHEM 495, Six (6) additional credit hours

Specialization in Organic Chemistry

CHEM 212/CHEM 320, CHEM 401, Six (6) additional credit hours

Specialization in Physical and Theoretical Chemistry

CHEM 420, CHEM 430, Three (3) credit hours from CHEM 415, 531, or 559, Three (3) credit hours of advanced coursework in PHYS or MATH

"Advanced coursework" includes CHEM 212, CHEM 320, BIOC 302, and chemistry courses at the 400-level or higher. Courses in other departments at the 400-level or higher with substantial chemistry content may count toward this requirement with approval of the Director of the Undergraduate Studies