

## 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).

### Chemistry Core Requirements

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*			1
CHEM 211 & 213 or CHEM 219			3
CHEM 313 & 314 or CHEM 320			3
CHEM 301			3
CHEM 302			3
CHEM 330			3
CHEM 360			3
BIOS 301**			3

\*CHEM 110 is recommended (not required) for all B.S. majors prior to enrolling in CHEM 391.

\*\*\*BIOS 201 is a prerequisite for BIOS 301, but the Biosciences Department confirmed that CHEM majors are waived from the BIOS 201 prerequisite. Students must contact the course instructor to special register for BIOS 301.

### Mathematics\*

Course	Semester Taken	Year Taken	Credits
MATH 101 or 105			3
MATH 102 or 106			3
MATH 211 or 220			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 212 is encouraged for students interested in graduate study.

### Physics

Course	Semester Taken	Year Taken	Credits
PHYS 101 & 103 or 111 or 125			4
PHYS 102 & 104 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
BIOS 311*			2

### Research (At Least Eight Credit Hours)

Course	Semester Taken	Year Taken	Credits
CHEM 391**			
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\*BIOS 311 has prerequisites of BIOS 211 and BIOS 301.

\*\*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. Up to two (2) credits of CHEM 700 may be used toward this requirement.

### Advanced Course Work (Nine 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

BIOS 302, Six (6) additional credit hours (CHEM 400-489, 495-699)

#### Specialization in Inorganic Chemistry and Inorganic Materials

CHEM 475, CHEM 496 Three (3) additional credit hours (CHEM 400-489, 495-699)

#### Specialization in Organic Chemistry

CHEM 401, Six (6) additional credit hours (CHEM 400-489, 495-699)

#### Specialization in Physical and Theoretical Chemistry

CHEM 420, CHEM 430, Three (3) credit hours from CHEM 415 or 531.

"Advanced coursework" includes BIOS 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 Undergraduate Studies (Dr. John Hutchinson).