

Emphasis - Chemical Physics

- [B.S. in Chemistry](#)
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B.S. in Chemistry **Description**

The B.S. in chemistry provides a rigorous foundation in the principal areas of basic chemistry. This program is designed for students who intend to pursue advanced studies leading to the M.S. or Ph.D. degrees in the chemical or biochemical sciences, or who wish to obtain employment as entry-level professional chemists in industrial or government laboratories. Students who intend to seek admission to combined M.D.-Ph.D. programs are advised to consider this degree program.

To enroll in the **B.S. in chemistry**, students must have successfully completed [Chem 105](#) or meet the prerequisites for [Chem 105](#).

Minimum Total Credit Hours: 120

General Education Requirements

See the 'General Education/Core Curriculum' for the College of Liberal Arts.

Course Requirements

A major in chemistry for the B.S. degree consists of the following 50 hours of chemistry courses: Chem 105, 106, 115, 116; 221, 222, 225, 226; 314; 331, 332, 337; 401, 402; 423, 469, 471, two semesters of 463 (for a total of 4 hours), and two advanced courses chosen from 512, 514, 519, 527, 528, 529, 530, 531, 532, 534, 536, 544, 563, or 593.

Also required are Phys 211, 212, 221, 222; Math 261, 262, 263, 264 as well as one course chosen from Math 319, 353, or 375. Students seeking the B.S. degree in chemistry who have already completed Phys 213/214 instead of Phys 211/212 must complete one calculus-based physics course chosen from Phys 303, 315, 319, or 321.

The following courses may not be used for major credit: Chem 101, 103, 104, 113, 114, 121, 201, 202, 271, 293, 381, 382, 383, or 393.

Emphasis - Chemical Physics **Course Requirements**

A major in chemistry for the B.S. degree with an emphasis in chemical physics consists of the following 48 hours of chemistry courses: Chem 105, 106, 115, 116; 221, 222, 225, 226; 314; 331, 332, 337; 401, 402; 469; 471, two semesters of 463 (for a total of 4 hours), and two advanced courses chosen from Chem 531, 532, 536, 544, 563, or 593.

Other Academic Requirements

Also required are Phys 211, 212, 221, 222; Math 261, 262, 263, 264 as well as one course chosen from Math 319, 353, or 375; and one course chosen from Phys 303, 308, 315, 317, 319, 321, 401, 422, or Astr 325. Students seeking the B.S. degree in chemistry with a chemical physics emphasis who have already completed Phys 213/214 instead of Phys 211/212 must complete one additional calculus-based physics course chosen from Phys 303, 315, 319, or 321.

