

## Chemistry at Stony Brook

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The Department of Chemistry offers a variety of degree opportunities for undergraduates. Students who wish to complete the B.S. Degree in Chemistry may elect one of the following four options, and they may secure certification by the American Chemical Society by suitable choices of electives.

**Chemical Science.** This option is the most traditional path, with the greatest emphasis given to core chemistry courses. Students electing this option will acquire a considerable amount of laboratory experience and will be well prepared for employment or graduate studies in all areas of chemistry.

**Biological Chemistry.** Students choosing this option take advanced courses in the biological sciences in addition to chemistry. The program prepares students for work or further study in such fields as biochemistry, pharmacology, medicinal chemistry, or medicine. This curriculum provides the best match for admission to biochemistry graduate programs.

**Chemical Physics.** This option is for students who wish to combine their studies in chemistry with intensive work in physics and mathematics. Students who complete the program are well trained for employment in chemistry, solid state physics, or materials and well prepared for graduate studies in chemical physics or physical chemistry.

**Environmental Chemistry.** This option combines studies in chemistry with work in ecology and environmental science. Students completing the program are well prepared for employment as chemists and for graduate study in chemistry or various environmental fields.

Students who wish to obtain the B.A. degree in Chemistry must complete a reduced set of requirements relative to the B.S. programs. The B.A. degree may be a good choice for

students seeking to combine their major in chemistry with another major, or with preparation for secondary school teaching.

The Departments of Chemistry and Materials Science and Engineering jointly offer the interdisciplinary **Engineering Chemistry Program**, which combines study in these two disciplines. Students apply chemical principles to understanding the electronic, mechanical, and technological properties of materials.

Students intending to major in most sciences (except physics and astronomy) commonly take introductory chemistry during their freshman years. This may involve General Chemistry Lecture, CHE 129-132, or CHE 131-132, or Honors Chemistry Lecture CHE 141-142 plus General Chemistry Laboratory, CHE 133-134 or Honors Chemistry Laboratory, CHE 143-144, depending on their preparation.

Students should choose their introductory course carefully, with the assistance of academic advisors, but adjustments can be made during the first five weeks of the fall semester.

Advanced Placement credit is available for CHE 131 and 132, with scores of 4 or 5 on the AP exam.

The following introductory courses are offered each fall:

CHE 129, General Chemistry I A  
CHE 131, General Chemistry I B  
CHE 132, General Chemistry II  
CHE 133, General Chemistry Lab  
CHE 141, Honors Chemistry  
CHE 143, Honors Chem. Lab.

Detailed lists of the requirements for the major and course descriptions can be found in the Chemistry sections of the current Undergraduate Bulletin. Brochures describing the various degree options in detail are available from the Chemistry office.

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