

CHEMISTRY AND BIOCHEMISTRY

The Chemistry and Biochemistry Department offers undergraduate and graduate programs, including BS and MS degrees, with both Thesis and Non-Thesis options. The Chemistry BS and Biochemistry BS are approved by the American Chemical Society (ACS), with the possibility of ACS certification through specific course selections. Accredited by the American Society of Biochemistry and Molecular Biologists (ASBMB), students can obtain ASBMB certification based on performance in a senior year exam.

Chemistry is foundational to various scientific and health fields, contributing to drug discovery, agriculture, environmental solutions, and national security. Chemists work across industries and government labs, impacting sectors from petroleum to education. Biochemistry delves into chemical processes in living systems, forming the basis of modern biology and medicine. Undergraduate study in biochemistry provides a strong foundation for advanced training and careers in healthcare and biomedical research, offering skills applicable to biotechnology industries. From pioneering cancer research to innovative energy solutions, biochemistry drives progress with cutting-edge ideas.

Departmental Mission

The core mission of the department is to train students in areas of chemistry and biochemistry to advance student education and future career goals, and prepare them to be lifelong learners. This mission is accomplished through a focus on excellence in teaching with one-on-one faculty mentoring through advising and undergraduate research. Our modern research-grade instrumentation makes it possible for students to explore contemporary problems in all of these areas. Chemistry and Biochemistry majors are encouraged to engage in faculty-directed independent research projects and to present the results of their studies in the chemical and biochemical literature and at scientific meetings. The curriculum for both majors prepares the graduates to continue their educations in graduate and professional schools including areas of health or law or to work in the chemical and pharmaceutical industries and in government laboratories. Our alumni are aware that through chemistry they can continue to make contributions to society that are of service to others.

Advisory Option—Chemistry Premedical

Students planning to enter medical or dental school should take BIO 101 and BIO 102.

Advisory Option—Chemistry and Business

Students who intend to pursue studies toward the MBA or who plan careers in the marketing or management areas of the chemical industry should minor in business.

Faculty

The faculty of Saint Joseph's University's Chemistry Department are esteemed experts in their field, boasting comprehensive expertise across all facets of chemistry. Dedicated to fostering student success, they are deeply committed to supporting and empowering students throughout their academic journey and beyond.

Department of Chemistry and Biochemistry Faculty & Staff (<https://www.sju.edu/departments/chemistry/faculty-staff/>)

Chemistry in the GEP

The GEP requires that all students take EITHER one semester of a lab-based natural science course (6 contact hours) OR two semesters of lecture-only natural science courses. Students who wish to satisfy the natural science GEP by completing courses in Chemistry or Biochemistry may do so by taking the first semester of the Chemistry majors, lab-based course sequence, CHM 120 and CHM 120L, or one of the lab-based, one-semester chemistry courses for non-science majors. Alternatively, students may fulfill one or both semesters of the natural science GEP by completing one or two of the special one-semester lecture-only Chemistry or Biochemistry courses designed for non-science majors listed below. Food Marketing majors may fulfill the GEP natural science requirement by taking CHM 112 and CHM 112L.

Non-science majors Chemistry GEP lecture-only courses:

Code	Title	Hours
CHM 100	Chemistry for the Consumer	3

Non-science majors Chemistry GEP lab-based courses:

Code	Title	Hours
CHM 115 & 115L	Chemistry in Daily Life and Chemistry in Daily Life	4
CHM 112 & 112L	Food Chemistry and Food Chemistry: Lab (open to Food Marketing majors only)	4

Programs Undergraduate Majors

- Biochemistry (<https://academiccatalog.sju.edu/arts-sciences/chemistry/biochemistry-major/>)
- Chemistry (<https://academiccatalog.sju.edu/arts-sciences/chemistry/chemistry-bs-american-chemical-society-certification/>)

Undergraduate Minors

- Biochemistry (<https://academiccatalog.sju.edu/arts-sciences/chemistry/minor-biochemistry/>)
- Chemistry (<https://academiccatalog.sju.edu/arts-sciences/chemistry/minor-chemistry/>)
- Pharmaceutical Chemistry (<https://academiccatalog.sju.edu/arts-sciences/chemistry/minor-pharm-chemistry/>)

Graduate

- Biochemistry (<https://academiccatalog.sju.edu/arts-sciences/chemistry/bipchemistry-ms/>)
- Chemistry (<https://academiccatalog.sju.edu/arts-sciences/chemistry/chemistry-ms/>)