

Major in Chemistry

Chemistry is the central science that encompasses the study of matter in all its forms. This branch of science describes the fundamental structures, composition, and characteristics of atoms and molecules which leads to an understanding of chemical reactivity. This chemical insight provides a broad foundation to apply to both the physical and biological sciences, opening up a variety of academic and professional pursuits. Studying chemistry requires a multidisciplinary approach that incorporates other areas of study such as biology, computer science, mathematics and physics. The diverse interests of chemists are reflected in the sub-disciplines of the field such as analytical, biological, inorganic, organic, and physical chemistry.

Careers

B.S. chemists can choose from a great variety of careers. The solid foundation in all physical sciences provides great flexibility in the type of employment. This is also reflected in annual top placement for starting salaries for B.S. chemists.

Small class sizes and individual attention are additional benefits that chemistry students enjoy while attending CSUB.

Interested students are encouraged to contact the Department of Chemistry for further information or to make an appointment with a faculty advisor.

Recommended Courses

The completion of the B.S. degree in Chemistry is designed to provide the basic courses in the core disciplines of chemistry while meeting the entrance requirements for both K-12 teachers and

post-baccalaureate study in medicine, dentistry, veterinary medicine, pharmacology, chiropractic, and physical therapy which also require one year of biology.

1. A minimum of 58 units in Chemistry.

CHEM 211 Chemistry Principles I
CHEM 212 Chemistry Principles II
CHEM 213 Chemistry Principles III
CHEM 331 Organic Chemistry I
CHEM 332 Organic Chemistry II
CHEM 350 Quantitative Analysis
CHEM 351 Physical Chemistry I
CHEM 352 Physical Chemistry II
CHEM 390 Chemical Literature
CHEM 400 Inorganic Chemistry
CHEM 450 Instrumental Analysis
CHEM 490 Senior Seminar

2. Additional 5 units (one course) of upper division course work selected with the pre-approval of the academic advisor.

3. The following Physics courses:

PHYS 201 Newtonian Physics
PHYS 202 Maxwellian Physics
PHYS 203 Contemporary Physics

OR

PHYS 221 Classical Physics I
PHYS 222 Classical Physics II
PHYS 223 Optics & Modern Physics

4. The following Mathematics courses:

MATH 201 Calculus I
MATH 202 Calculus II
MATH 203 Calculus III

OR

MATH 211 Calculus I for Life Sci.
MATH 212 Calculus II for Life Sci.
MATH 203 Calculus III

For more information, please contact:

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