

CHEMISTRY *with a Concentration in Biochemistry/Pre-Med*

COLLEGE OF ARTS + SCIENCES



COURSES

In addition to your concentration in biochemistry, our program structure includes thorough course work in chemistry with supporting classes in mathematics, physics, and biology so you're prepared for anything. Here's a sample of what you can expect to learn and do:

General Chemistry Lecture + Lab

This course covers the fundamental principles of general chemistry, including the development of modern atomic theory and its role in chemical bonding, structure and reactivity, an introduction to thermodynamics and kinetics, and development of equilibria concepts.

Organic Chemistry Lecture + Lab

Students build a strong foundation in organic chemistry and combine knowledge with practical skills by synthesizing, purifying, and identifying organic compounds. Techniques include: acid/base extraction, recrystallization, distillation, organic reactions, IR spectroscopy, refractive index, melting point and NMR.

Biochemistry I

This course is a detailed study of the structure and function of the major classes of biological macromolecules. Topics include protein structure and folding, experimental methods used to characterize and manipulate proteins and DNA, allostery and other regulation, molecular disease, enzyme mechanism and inhibition, and membranes.

Biochemistry II

This course examines metabolism and metabolic regulation, including vitamins and cofactors, glycolysis, TCA cycle, oxidative phosphorylation, glycogen metabolism, gluconeogenesis, photosynthesis, and the metabolism of fatty acids, lipids, amino acids, and nucleotides.

THE WORLD IS FULL OF QUESTIONS. We turn to chemists for answers to many of them. Is this water safe to drink? Does this new vegetable hybrid contain the vitamins I need? Chemists work to remediate air pollution, create novel antibiotics, or design new solar cells. They study gold nanoparticles, crystal engineering, and organic superconductors. With an additional concentration in biochemistry, you'll have the tools to protect and improve the quality of life itself. The world will always need people like you, and our program will prepare you to make a career out of solving problems and answering tough questions that have a real impact on our lives and environment.

Possible Careers:

- Chemical engineer
- Forensic scientist
- Toxicologist
- Doctor

ATTENDING LOYOLA means being in the heart of New Orleans. Our campus is located in the city's historic Uptown neighborhood, just a short drive from the Central Business District, the city's hub of innovation and strategic thinking. You'll learn to hone your talents in the city named #1 new brainpower city in America and the #5 city in the U.S. for women in tech.