

CHEMISTRY AND BIOCHEMISTRY

About the Department

Division of Natural Sciences Faculty (<https://spu.edu/academics/college-applied-natural-sciences/faculty-staff?d=Natural%20Sciences>)

Department of Chemistry and Biochemistry Website (<https://spu.edu/academics/college-applied-natural-sciences/chemistry>)

Chemistry and biochemistry are primarily concerned with matter, energy, and their interactions. Chemists and biochemists do a wide variety of things:

- Become professionals with healthcare careers including medicine, pharmacy, dentistry, nuclear medicine, and etc.
- Make new substances, including new materials and medicines.
- Design new ways to make known compounds.
- Isolate and determine chemical structures of naturally occurring substances.
- Elucidate the chemical mechanisms behind biological processes.
- Attempt to explain the changes matter undergoes.
- Develop and apply analytical techniques to identify and quantify chemicals in biological, environmental, developmental, or industrial samples.
- Work in the chemical industry, do research in science labs, nuclear chemistry labs, and medical labs
- Apply chemical knowledge to solve societal and technological problems.
- Prepare for a professional health care career

Chemists are also concerned about the effect their work and technology have on society and on individuals. They are in the forefront of efforts to make sure that technology serves society and stewards resources well.

Our Mission

The curriculum is designed to serve students who desire a career in chemistry, biochemistry, or science education, or are interested in pursuing further study in medicine, dentistry, pharmacy, engineering, or other sciences.

Majors

- Biochemistry (BS) (<https://catalog.spu.edu/undergraduate/college-schools/cans-natural-science/chemistry-biochemistry/biochemistry-bs/>)

Minors

- Chemistry Minor (<https://catalog.spu.edu/undergraduate/college-schools/cans-natural-science/chemistry-biochemistry/chemistry-minor/>)

Program Learning Outcomes

Graduates with degrees in chemistry and biochemistry have many options. SPU alumni are working at places such as the National Oceanic and Atmospheric Administration, Washington State Patrol Forensic Lab, Oak Ridge National Laboratory, Los Alamos National Laboratories,

Fred Hutchinson Cancer Research Center, Bristol-Meyer/Squibb, Seattle Biomedical Research Institute, Rapigene, May Clinic and a wide variety of public and private schools.

Many alumni have also entered medical school or other graduate programs at such places as the University of Washington, Johns Hopkins University, Washington State University, and Georgetown University.

Future Teachers

If you are interested in teaching chemistry at the middle school or high school level, you should plan to complete the Biochemistry (BS) degree along with the Secondary Certification (<https://catalog.spu.edu/undergraduate/college-schools/hea-education/certifications/secondary-certification/>) program through the School of Education. This program leads to an endorsement in Chemistry for grades 5-12. With consultation with an advisor, a pre-approved student-designed major that mimics a historically traditional bachelor of arts in chemistry degree might also be appropriate.

Contact the Certification Office (soe-cert@spu.edu) for complete information on the certification program.