

Chemistry and Biochemistry

Chemistry is a physical science that studies and investigates the composition, properties, and transformation of substances and various elementary forms of matter. The chemistry major provides broad and comprehensive education and training in all areas of modern chemistry including course work in the five major sub-disciplines of chemistry – organic, inorganic, physical, biological and analytical.

Biochemistry is the study of life from a molecular perspective, from the simplest microorganism, such as virus and bacteria, to the most complex plants and animals. Using the tools of chemistry and molecular genetics, biochemists study life processes at all levels, from the physical-chemical studies of proteins and DNA to the molecular biology of diseases. Over the past 20 years, knowledge of living systems has increased dramatically, and the future holds promise for still more significant discoveries.

Possible Immediate Job Titles with a Bachelor's Degree

Chemist

Chemists study atoms and molecules and the way in which they react with each other, and use their knowledge to test existing products and create new ones. To become a chemist, one must take extensive coursework in chemistry, such as organic, inorganic, physical, and analytical chemistry, as well as courses in mathematics and computer science. They must also have significant laboratory experience.

Chemical Information Management Specialist

Chemical information management specialists find and organize information found in journals, patent literature, and other scientific sources and make it easily accessible to researchers and students. To become a chemical information management specialist, one must not only have a strong background in either chemistry or biochemistry, but must also have the ability to perform market research, and thus obtain marketing or business experience.

Possible Job Titles with an Advanced Degree

Medical Scientist – **Doctorate Degree Required**

Medical scientists conduct research with the goal of improving overall human health. To become a medical scientist, one must have a firm background in either chemistry or biochemistry, or a related scientific field, and must also have excellent writing skills, as they must be able to perform grant writing and publish research findings.

This is not an exhaustive list of occupations and it is highly recommended you conduct informational interviews and engage in experiential learning activities to help you broaden your interest areas within your major. Please contact the Career Design Center and speak to a Career Coach for further discussion; 512-471-6700 Painter Hall (PAI) 5.03.

Online Resources

[What can I do with a chemistry major?](#)

[What can I do with a biochemistry major?](#)

[Is a career in chemistry or biochemistry best for you? Explore Focus2.](#)

Job Posting Websites

[Handshake](#)

Handshake is Career Services' primary job posting site, and all students should have an account to not only apply for jobs and internships, but also to stay current on upcoming events, employer information sessions and other opportunities. Create an account!

[Vault](#)

[New Scientist Jobs](#)

[Chemistry Jobs](#)

[Going Global](#)

[Science Jobs Help](#)

[Organic Chemistry Resources
Worldwide](#)

[Dice](#)

[American Academy of
Forensic Sciences](#)

[Chemical Consultants
Network](#)

[BioSpace](#)

Professional Associations

[American Chemical Society*](#)

[National Academy of Clinical Biochemistry*](#)

[American Institute of Chemists*](#)

[American Association of Analytical Chemists](#)

*Association Includes a Job Database

Additional Resources

[The National Academies](#)

[Sloan Career Cornerstone Center](#)

[ChemWeb](#)

[American Chemistry Council](#)