

# Chemistry

## What does a chemistry major study?

Chemistry is the science of all matter and its changes and is, therefore, intimately linked to all the natural and applied sciences. The curriculum of the Bachelor of Science degree in Chemistry will involve the study of numerous fields of chemistry, including analytical, biological, inorganic, organic, and physical chemistry.

## Why study chemistry at Coastal Carolina University?

- A chemistry degree will prepare you for a wide variety of post-graduate (M.S. or Ph.D.) opportunities, such as graduate programs in chemistry and biochemistry; pharmacy, medical, or dental school; and various teaching degrees.
- Students with a bachelor's degree in chemistry find work opportunities in the chemical, biochemical, environmental, medical, and pharmaceutical industries, as well as forensic and government laboratories.
- State-of-the-art instrumentation includes High Field Fourier Transform Nuclear Magnetic Resonance (FT-NMR), FTIR, Raman, and Ultraviolet/Visible (UV/VIS) Spectrophotometers; a Gas Chromatograph with Flame Ionization Detection (GC/FID); and a High Performance Liquid Chromatograph (HPLC).
- Since laboratory research is an integral part of the University's program, students work closely with faculty to carry out individually-tailored research projects. Some areas in which students may conduct research are atmospheric chemistry, chemical education, forensic chemistry, fuel-cell chemistry, peptide engineering, porphyrin chemistry, structural biochemistry, and photochemistry and enzyme kinetics.
- Students have the opportunity to work in the chemistry department as laboratory and teaching assistants, which will hone their scientific skill and proficiency.

## What are some career options for chemistry majors?

Chemists are involved in all of the following areas/industries:

- Basic research
- Environmental work
- Food science
- Clinical medicine
- Quality control in all types of manufacturing
- Research in developing new and better technologies
- Sales and marketing of chemicals, pharmaceuticals, and instrumentation
- Technical writing for newspapers, magazines, textbooks, and electronic media
- Teaching at all levels
- Patent law
- Instrument development
- Forensics

## What kind of courses do chemistry majors take?

CHEM 111 General Chemistry      CHEM 351 Biochemistry      CHEM 422 Instrumental Analysis  
CHEM 321 Analytical Chemistry      CHEM 411 Inorganic Chemistry  
CHEM 331 General Organic Chemistry      CHEM 441 Physical Chemistry

## Whom can I contact for more information?

- Brett K. Simpson, Ph.D., chair of the department, 843-349-2233 or [bsimpson@coastal.edu](mailto:bsimpson@coastal.edu)
- Mary Sue Keasler, administrative assistant, 843-349-2379 or [mkeasler@coastal.edu](mailto:mkeasler@coastal.edu)
- You can also find more information at [www.coastal.edu/chemphys](http://www.coastal.edu/chemphys).