

Chemistry



Chemistry is the study of the composition, properties, and transformations of matter at an atomic and molecular level. Chemistry has been called the central science, as it connects the more basic disciplines of biology, mathematics, and physics with more applied areas of science. A fundamental understanding of chemistry enables the development of viable and thoughtful solutions to critical global issues, ranging from climate change to public health.

Following a year of general chemistry with lab, students take a combination of lecture and laboratory courses in the subdisciplines of organic, inorganic, and physical chemistry, in addition to more advanced elective courses.

Programs

- BA and BS in Chemistry
- Engineering Chemistry BS (ECM)- jointly sponsored by the College of Arts and Sciences and the College of Engineering and Applied Sciences
- Accelerated 5-year BS/MS program in Chemistry
- American Chemical Society Certification
- Minor in Chemistry

Choose one of five area options:

- Chemical Science
- Biological Chemistry
- Chemical Physics
- Environmental Chemistry
- Marine and Atmospheric Chemistry





Celine Marino '23
BS Chemistry

"I chose Stony Brook for the research opportunities and hands-on experience available to students. In chemistry, the courses were challenging but rewarding!"

"My greatest achievement was the research I conducted at Brookhaven National Laboratory. I was given the chance to co-author a published paper with my mentor and post-doc!"

The most important benefit is the understanding you gain as to how scientific information is accumulated and ideas developed, and how you fit into the picture - is this what you want to spend your life doing? In fact, your participation in research may turn out to be the most important aspect of your college experience.



Career Pathways

- Education at all levels
- Medicine
- Health Care
- Manufacturing
- Microelectronics
- Petrochemicals
- Sustainable energy (e.g., battery, fuel cell, and water purification) applications
- Government lab work and research
- Analytical testing and diagnostics
- Chemical Industry
- Pharmaceutical and drug research and development

Research Opportunities

Many chemistry majors get involved in interesting and innovative research in the laboratories of faculty members in Chemistry and other Departments. Benefits of research include:

- experience that may be useful to you in future study or your career
- formation of professional relationships with your supervisor/mentor that can serve as the basis for a letter of recommendation
- receipt of course credit that can be applied to your degree, and you may even be paid for your work
- You will receive course credit and may even be paid for your work

The Department is involved in many collaborative research projects with scientists at other area institutions including:

- Brookhaven National Lab
- Cold Spring Harbor Laboratory
- Rockefeller University
- Sloan-Kettering Cancer Center



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