UNDERGRADUATE STUDIES IN

CHEMISTRY



Renewable energy, nanotechnology, advanced materials, sustainable processes, pharmaceuticals, biotechnology, environmental concerns, and forensics are in the news on a daily basis. Chemistry is a critical component in each of these areas and plays a central role in the nation's health, nutrition, security, energy, technology development, and economy. The School of Chemistry and Biochemistry offers programs that prepare students for a wide range of exciting careers in industry, government agencies, patent law, and education. They also provide an excellent background for admission to graduate and professional schools, including medical, pharmacy, and law programs.

Foundational understanding, laboratory experiences, pre-health options

The chemistry bachelor's degree program, in the School of Chemistry and Biochemistry, is certified by the American Chemical Society (ACS). Based on a core curriculum covering analytical, organic, inorganic, biological, and physical chemistry, the program provides a strong foundational understanding and extensive practical laboratory experiences using sophisticated instruments. ACS-approved tracks allow students to focus their degree program in areas such as polymers and materials, business, and biochemistry. We also offer a pre-health track tailored to the needs of students pursuing admission to medical and other healthcare professional programs. Students can pursue our B.S./M.S. option, where it is possible, by careful course selection, to obtain both B.S. and M.S. degrees in chemistry in five years of study.

Cutting-edge research options

Students enjoy exceptional opportunities to participate in cutting-edge, world-renowned research programs. Close interactions with faculty and graduate researchers create a unique learning environment, combining the intellectual challenge of chemistry with the excitement of discovery in a creative and team-oriented environment. Students make use of state-of-the-art facilities and often appear as co-authors on papers published in scholarly journals or present their work at scientific conferences. They may also elect to complete the Institute's Research Thesis Option.

Prioritizing accessibility

The school provides a nurturing environment for its majors with special sections of GT 1000: Freshman Seminar and a student-affiliated chapter of ACS. Majors also participate in the Alpha Chi Sigma professional fraternity and the Georgia Tech chapter of the National Organization of Black Chemists and Chemical Engineers. The school maintains a dynamic advising program with close contact between students and their academic advisor throughout the undergraduate years.

FOR MORE INFORMATION

For more information, please see **chemistry.gatech.edu**, or contact the school's Director of Advising **Hui Zhu** at **hui.zhu@chemistry.gatech.edu**.













Undergraduate research

Undergraduate students working in world renowned research groups in the school contribute to research that is presented at national and international conferences and published in leading scholarly journals. For example:

- **Matthew Rohan** published several papers on theoretical and computational chemistry as a member of the Kretchmer group.
- As a member of the Soper group, **Mariah Castillo** coauthored a paper published in the *Journal of the American Chemical Society* titled "Redox-Active Ligands Permit Multielectron O_2 Homolysis and O-Atom Transfer at Exceptionally High-Valent Vanadyl Complexes" (doi: 10.1021/jacs.4c18305).
- **Eric Baker** coauthored a paper titled "BCARS Simulated Phantom Dataset for Evaluation of Processing Pipelines," published in the *Journal of Raman Spectroscopy* based on his work in the Cicerone lab (doi: 10.1002/jrs.70079).

International opportunities

Students in the School of Chemistry and Biochemistry have a wide range of opportunities for undergraduate study at institutions throughout the world. Further information can be obtained from the Office of International Education (**oie.gatech.edu**). Each year, a number of our majors participate in Georgia Tech-led chemistry programs in Lyon, France (summer semester) and Barcelona, Spain (fall semester).

Careers

The B.S. program in chemistry provides exceptional levels of preparation for admission to graduate programs, medical school, and other professional graduate programs (e.g., veterinary science, pharmacy, law). Chemistry graduates take positions in all types of employment sectors, such as:

- Pharmaceutical
- Healthcare
- Patent law
- Public health
- Consulting
- Sales and marketing
- Clinical laboratories
- Research and development
- Product design and development
- Food processing and safety
- High school and college reaching
- Materials characterization
- State/Federal agencies (NIH, CDC, DoD)
- Biotechnology

Georgia Tech has the largest voluntary co-op education program in the nation. Participation in co-op or internship programs provides financial support for your studies and invaluable experiences. See **career.gatech.edu**.

- Georgia Tech is nationally recognized as a top-value college due to its academics, affordability, and career outcomes. [1]
- The U.S. Department of Labor reports that the average salary of chemists is $100,450. [2]

[1] https://finaid.gatech.edu/costs/return-on-investment
[2] www.bls.gov/oes/current/oes192031.htm