Chemistry Building Room 238
T: 512.245.2156 F: 512.245.2374
www.txstate.edu/chemistry (http://www.txstate.edu/chemistry/)

The department offers a Ph.D. degree in Integrated Molecular and Biophysical Chemistry (IMBC) and M.S. degrees in both Chemistry and Biochemistry. In addition, the department offers a M.A. degree program in Chemistry. The Ph.D degree is a research intensive interdisciplinary program emphasizing the chemistry and biochemistry of natural systems. To prepare for careers in biotechnology, students develop leadership and business fundamental skills concurrently with completing a dissertation. The M.S. degrees are research-based and require a thesis while the M.A. degree is course-based and requires successful completion of a cumulative examination. Our faculty are dedicated to maintaining excellence in education and research to serve the people of Texas and beyond. The department fosters innovative research programs that expand knowledge through discovery and development, actively contribute to the broader scientific community, and address critical global needs. We are committed to the professional development and mentoring of a diverse and inclusive community of faculty, staff, and students. The curriculum provides opportunities for research and learning in all areas of chemistry and biochemistry and encourages a hands-on approach to the use of a wide variety of modern instrumentation. Many of our graduates advance to industrial positions and/or professional and doctoral programs.

Research Areas

The department's graduate faculty conducts research in numerous subdisciplines of chemistry, biochemistry, and biophysics, including:

Subdiscipline	Research Areas
Analytical	mass spectrometry, chromatography, electrochemistry, spectral methods
Biochemistry	Biochemistry enzyme mechanisms, protein structure-function relationships, intrinsically-disordered proteins, molecular genetics, gene delivery, nucleic acid biochemistry, ribonucleoprotein complex function and regulation, genomics, biomaterials
Inorganic	synthesis and structure of high conductivity solid-state electrolyte compounds, bioinorganic chemistry, solid state synthesis, metal complex catalysis, intercalation chemistry, crystallography
Organic	Organic medicinal chemistry, small molecule synthesis, physical organic chemistry, reactive intermediates, polymer synthesis, photochromism
Physical	Physical and Biophysical nanomaterials, thin organic films, structure-property relationships, computational chemistry, protein folding pathways

Research Facilities

Research instruments available include 400 and 500 MHz NMR, X-ray Diffractometer, UV and IR spectrophotometers, atomic absorption, liquid and gas chromatographs, electrospray ionization/mass spectrometer, high-speed centrifuges, TGA, DSC, DMA, particle size analyzer, GPC, epi-fluorescent microscope, CO_2 incubators, and multi-well plate readers. A complete list of instrumentation can be found here (https://www.txstate.edu/chemistry/research/facilities.html).

Financial Assistance

GGraduate students are encouraged to work as instructional assistants. Applications can be obtained from the Department of Chemistry and Biochemistry website. A limited number of research assistantships are also available based on available funding from individual research advisors. The Graduate College can provide information about the availability of graduate scholarships. To be considered for assistantships or scholarships, applicants must have submitted a completed application for review by the priority application deadline.

Doctor of Philosophy (Ph.D.)

- Major in Integrated Molecular and Biophysical Chemistry

Master of Arts (M.A.)

- Major in Chemistry (http://mycatalog.txstate.edu/graduate/science-engineering/chemistry-biochemistry/chemistry-ma/)

Master of Science (M.S.)

- Major in Biochemistry (http://mycatalog.txstate.edu/graduate/science-engineering/chemistry-biochemistry/biochemistry-ms/)
- Major in Chemistry (http://mycatalog.txstate.edu/graduate/science-engineering/chemistry-biochemistry/chemistry-ms/)

Bachelor of Science (B.S.) and Master of Science (M.S.)

- Major in Biochemistry (Early-Entry Program) (http://mycatalog.txstate.edu/graduate/science-engineering/chemistry-biochemistry/biochemistry-earlyentry-bs-ms/)
- Major in Chemistry (Early-Entry Program) (http://mycatalog.txstate.edu/graduate/science-engineering/chemistry-biochemistry/chemistry-earlyentry-bs-ms/)

Minors

- Biochemistry (http://mycatalog.txstate.edu/graduate/science-engineering/chemistry-biochemistry/biochemistry-minor/)
- Chemistry (http://mycatalog.txstate.edu/graduate/science-engineering/chemistry-biochemistry/chemistry-minor/)