

# DEPARTMENT OF CHEMISTRY AND BIOCHEMISTRY

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Fairfax Campus

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## Administration

- Gerald Weatherspoon, Chair
- Megan Erb, Associate Chair
- Chao Luo, Associate Chair for Research
- Mikell Paige, Associate Chair for Research
- Jessica Callus, Undergraduate Coordinator
- Andre Clayborne, Graduate Coordinator

## Undergraduate Programs

The Department of Chemistry and Biochemistry offers undergraduate programs leading to the BA (<http://catalog.gmu.edu/colleges-schools/science/chemistry-biochemistry/chemistry-ba/>) and BS (<http://catalog.gmu.edu/colleges-schools/science/chemistry-biochemistry/chemistry-bs/>) degree in Chemistry, with optional concentrations in Analytical Chemistry, Biochemistry, and Environmental Chemistry, as well as a five-year BS/Accelerated MS degree (<http://catalog.gmu.edu/colleges-schools/science/chemistry-biochemistry/chemistry-bs/#acceleratedmasterstextcontainer>). Our comprehensive undergraduate education in chemistry is designed to prepare students for professional careers in chemistry and for advanced studies in chemistry and chemistry-related areas such as environmental science, material science, biochemistry, medicinal chemistry, geochemistry, chemical waste management, pharmacy, forensic chemistry, and chemical engineering. Students planning medical, dental, or veterinary careers may meet the requirements of these professional schools by majoring in chemistry.

## Pre-Medical, Pre-Dental, Pre-Pharmacy, and Pre-Veterinary Students

Web: [prehealth.gmu.edu](http://prehealth.gmu.edu) (<http://prehealth.gmu.edu>)

Many students planning medical, dental, pharmacy, veterinary, optometry, or other health professional careers choose to pursue a major in chemistry. These students should consult the health professions advising web site on required coursework and overall preparation.

## Pre-Pharmacy Society

Mason students who are interested in pursuing careers in pharmacy are encouraged to participate in the Pre-Pharmacy Society. This student organization organizes supplemental programming focused toward pharmacy as a career.

## Chemistry Club

The Chemistry Club provides a social and informational network for students. It serves the Department of Chemistry and Biochemistry by sponsoring informational programs and allowing students to work at university events.

## National Organization for the Professional Advancement of Black Chemists and Chemical Engineers

The GMU Chapter of NOBCCChE (<https://mason360.gmu.edu/nobccche/home/>) (National Organization for the Professional Advancement of Black Chemists and Chemical Engineers) supports the development of diverse leaders in STEM through academic, professional, and leadership opportunities.

## Graduate Programs

The department's graduate programs (MS (<http://catalog.gmu.edu/colleges-schools/science/chemistry-biochemistry/chemistry-ms/>) and PhD (<http://catalog.gmu.edu/colleges-schools/science/chemistry-biochemistry/chemistry-biochemistry-phd/>)) provide advanced training for students who are recent college graduates, professionals in teaching, or technical workers in local research organizations. Students select a specialization from the fields of analytical, biological, environmental, inorganic, organic, physical, or computational chemistry. The graduate chemistry courses for these programs are usually offered during the late afternoon or evening hours for the convenience of students who are employed full-time. Graduate fellowships and teaching/research assistantships are available to the most qualified students.

The department offers a Chemistry, MS (<http://catalog.gmu.edu/colleges-schools/science/chemistry-biochemistry/chemistry-ms/>) with a research project (thesis option) or an all-coursework program (non-thesis option). Within the MS, students may pursue a concentration in biochemistry. The PhD in all branches of chemistry is available through the Chemistry and Biochemistry, PhD. Students may also pursue Chemistry-related PhD research through the Environmental Science and Public Policy, PhD and the Biosciences, PhD. An area of emphasis in computational chemistry is available through the Computational Sciences and Informatics, PhD, offered in conjunction with the Department of Computational and Data Sciences.

## Faculty

## Department Faculty

### Professors

Foster, Hussam, Jones, Paige (associate chair for research)

### Associate Professors

Bishop, Clayborne (graduate coordinator), Couch, Erb (associate chair), Fayissa, Foreman, Luo (associate chair of research), Roy, Schreifels, Van Aken, Weatherspoon (chair)

### Assistant Professors

Banerjee, Callus, Jing, Luo, Solomon, Tan, Wang, Ward, Yu

### Emeriti

Cozzens, Davies, Slayden

## Requirements & Policies

### Requirements

#### Writing Intensive Requirement

Mason requires all undergraduate students to complete at least one course designated as “writing intensive” in their majors at the 300 level or above. Students majoring in chemistry fulfill this requirement by successfully completing CHEM 336 Physical Chemistry Lab I or CHEM 465 Biochemistry Lab.

#### Teacher Licensure

Students who wish to become teachers should consult the College of Education and Human Development (<http://catalog.gmu.edu/colleges-schools/education-human-development/>) and attend an information session early in their studies. For more information, visit [gse.gmu.edu](http://gse.gmu.edu) (<http://gse.gmu.edu>).

## Programs

- Chemistry Minor
- Chemistry and Biochemistry, PhD
- Chemistry, BA
- Chemistry, BS
- Chemistry, MS