Bennett Department of Chemistry

Degrees Offered

- Bachelor of Arts
- Bachelor of Science

Nature of the Program

The Bennett Department of Chemistry offers the bachelor of science with a major in chemistry and the bachelor of arts with a major in chemistry. These programs are configured to meet the needs of all students who have an interest in the broad field of chemistry.

The Department of Chemistry is located in Clark Hall, a state-of-the-art teaching facility for chemistry. Clark Hall offers many new instruments, numerous safety features, excellent ventilation and ample hoods, and complete accessibility for the physically handicapped. The department also has modern research facilities in the adjacent Chemistry Research Laboratory building where advanced undergraduates may participate in research projects.

The bachelor of science with a major in chemistry is approved by the American Chemical Society. This program is for students who desire to qualify for professional positions in industrial and governmental laboratories as well as those who plan to do graduate work in chemistry or allied areas in preparation for research careers in industry or academia.

The bachelor of arts with a major in chemistry is for students who pursue careers requiring a good background in the basic principles of chemistry. Areas such as medicine, dentistry, or other health-related sciences; secondary school teaching; chemical laboratory technical work; law; or business may be pursued with a proper choice of electives.

The two programs are similar during the first two years. Students in the B.S. program should complete the calculus requirement as soon as possible as a prerequisite for both the physics and physical chemistry sequences. The two degree programs differ primarily in the chemistry requirements. The B.S. program requires more upper-level chemistry courses than the B.A. program.

Students who earn a degree in the Eberly College of Arts and Sciences must complete the University requirements, the College requirements for their specific degree program, and their major requirements.

Chemistry Scholarships

In addition to financial aid offered by the University, the department maintains seven scholarships specifically for chemistry majors. The John A. Moore Trust Scholarships, the Charles L. Lazzell Scholarship, the Carpenter Family Scholarship, the Robert L. and Patricia Miller Stultz Chemistry Scholarship, the Herbert and Hannah Seigel Chemistry Scholarship, the Willard W. Hodge Scholarship, the Morrissey-Ropp Chemistry Scholarships, the William R. and Phylis T. Moore Organic Chemistry Scholarship, the Joseph T. Green Memorial Scholarship, and the Bud and Patty Blizzard Scholarships are awarded to students in either the B.S. or B.A. programs with records of outstanding achievement and demonstrated financial need. Several of these scholarships are restricted to West Virginia residents. Scholarship recipients are expected to remain as chemistry majors and to maintain a 3.0 average in their degree programs in order to be eligible for continued support.

Minors

All students have the possibility of earning one or more minors; follow the link for a list of all available minors and their requirements (http://catalog.wvu.edu/undergraduate/minors/). Please note that students may not earn a minor in their major field.

FACULTY

CHAIR

- Gregory Dudley - Ph.D. (Massachusetts Institute of Technology)
  Synthetic organic chemistry

ASSOCIATE CHAIR

- Michelle Richards-Babb - Ph.D. (Lehigh University)

DIRECTOR OF GRADUATE STUDIES

- Brian Popp - Ph.D. (University of Wisconsin-Madison)

DIRECTOR OF UNDERGRADUATE STUDIES

- Betsy Ratcliff - (University of Binghamton-SUNY)

PROFESSORS

- Gregory Dudley - Ph.D. (Massachusetts Institute of Technology)
  Regular Graduate Faculty; Eberly Family Distinguished Professor; Chemical Synthesis, Organic Reaction Methodology, Medicinal Chemistry
- Terry Gullion - Ph.D. (College of William & Mary)
  Physical chemistry, Solid State NMR, Biological Materials, Polymers
- Lisa Holland - Ph.D. (University of North Carolina-Chapel Hill)
  Micro-separations, High throughput drug screening
- Fred L. King - Ph.D. (University of Virginia)
  Analytical chemistry, Mass spectrometry, Trace elements, Gas-phase chemistry
- Justin Legleiter - Ph.D (Carnegie Mellon University)
  Professor - Coordinator of the Undergraduate Intercollegiate Biochemistry Program
- Betsy Ratcliff - Ph.D. (University of Binghamton - SUNY)
  Physical Chemistry
- Michelle Richards-Babb - Ph.D. (Lehigh University)
  Chemical Education
- Steven Valentine - Ph.D. (Indiana University)
  Eberly Professor of Chemistry, Mass spectrometric analysis of biomolecules

ASSOCIATE PROFESSORS

- Erin Battin - Ph.D. (Clemson University)
  Bioinorganic Chemistry
- Fabien Goulay - Ph.D. (Université de Rennes)
  Physical chemistry, Laser spectroscopy
- Peng Li - Ph.D. (Texas Technical University)
  Analytical chemistry, microfluidic devices
- Joshua Osbourn - Ph.D. (University of Pittsburgh)
  Organic chemistry
- Brian Popp - Ph.D. (University of wisconsin - Madison)
  Organic and organometallic chemistry, Catalysis
- Mark Tinsley - Ph.D. (Leeds University, England)
  Nonlinear dynamics, chemical oscillators, moving precipitation patterns.
- Mingming Xu - Ph.D. (Ohio University)
  Analytical chemistry

ASSISTANT PROFESSORS

- Hacer Karatas Bristow - Ph.D. (University of Michigan)
  Medicinal Chemistry
- Brian Dolinar - Ph.D. (University of Wisconsin - Madison)
  Synthetic Inorganic Chemistry, Magnetochemistry, Physical Inorganic Chemistry, Computational Chemistry
- Margaret Hilton - Ph.D. (University of Utah)
- Carolyn Kitchens - Ph.D. (University of Pittsburgh)
  Biochemistry
- David Mersing - Ph.D. (West Virginia University)
  Teaching Faculty; Physical Chemistry
- Brian Nichols - Ph.D. (West Virginia University)
  Organic Chemistry
- Tobi Odeleye - Ph.D. (South Dakota State University)
  Chemical Education
- Trina Perrone - Ph.D. West Virginia University
  Organic Chemistry

TEACHING INSTRUCTOR

- Mark Schraf - M.S. (West Virginia University)
  Analytical chemistry

PROFESSORS EMERITI

- Harry Finklea - Ph.D. (California Institute of Technology)
- Robert S. Nakon - Ph.D. (Texas A&M University)
- John Penn - Ph.D. (University of Wisconsin - Madison)
- Jeffrey Petersen - Ph.D. (University of Wisconsin-Madison
- Kenneth Showalter - Ph.D. (University of Colorado)
- Ronald Smart - Ph.D. (University of Michigan)
- Bjorn Soderberg - Ph.D. (Royal Institute of Technology, Sweden)
  Organic synthesis using transition metals
- Kung Wang - Ph.D. (Purdue University)
- Anthony Winston - Ph.D. (Duke University)

Admissions for 2025-2026

- First Time Freshmen are admitted to the major directly. For the timely completion of the degree, it is recommended that students have a minimum MATH ACT of 22, a MATH SAT of 540, or an ALEKS score of 45.
- Students transferring from another major within WVU are admitted into the major if they have completed CHEM 115, CHEM 115L, CHEM 116, and CHEM 116L with a grade of C- or better in each and have earned a minimum overall GPA of 2.0.
- Students transferring from another institution are admitted into the major if they have completed CHEM 115, CHEM 115L, CHEM 116, and CHEM 116L with a grade of C- or better in each and have earned a minimum overall GPA of 2.0.

Major Code: 1439

Degree Progress

- By the end of their second semester (excluding summer) in the major, at minimum, students must have completed MATH 126 with a minimum grade of C-.
- By the end of the second semester in the major or two semesters after completing CHEM 110, completion of CHEM 115, CHEM 115L, CHEM 116 and CHEM 116L with C- or better in each.
- By the end of the second year in the major, completion of CHEM 234 and CHEM 234L with C- or better and a 2.0 in the major.
- All majors must meet with a Chemistry adviser each semester.

Students who do not meet their benchmark expectations may be removed from the major.

Major Learning Outcomes

CHEMISTRY

1. Will have sufficient knowledge of the fundamental chemical principles and an understanding of the methods of chemistry to be able to formulate solutions to problems of chemical relevance.
2. Will have acquired sufficient training to perform accurate and precise quantitative analyses, to utilize modern instrumental methods of analysis, to analyze and report the results of chemical experimentation, to work safely with chemicals, and to work effectively both as an individual and in a small group.
3. Will understand how to retrieve information from the chemical literature and be able to organize and communicate chemical information effectively in written reports and oral presentations.
4. Will possess the basic laboratory skills and chemical knowledge to qualify for entry level industrial or government laboratory positions or to be able to apply and gain admission to competitive graduate and professional schools.