CHEMISTRY

Our American Chemical Society certified degree programs provide students with solid and comprehensive instruction in preparation for graduate training or professional work in chemistry.

DEGREES/CONCENTRATIONS

BACHELOR OF SCIENCE (B.S.) IN CHEMISTRY
Provides broad, in-depth training in chemistry to prepare students for careers as professional chemists or further study in graduate-level programs. The following options are also available.

- Biochemistry – Interdisciplinary program focused on the chemistry of life processes. Offers excellent student preparation for acceptance to medical schools, pharmacy schools or forensic chemistry programs. ACS-certified option available.
- Environmental – Interdisciplinary program of study that includes green chemistry and sustainability, all areas of science, and explores issues of social, economic and political importance.
- Nanotechnology – Provides specific skills and knowledge in study and control of matter at atomic or near-atomic scale. Includes training in nanofabrication and use of cleanroom facilities. Offers excellent preparation for graduate work in materials science or industry.
- Polymer – Area of study focused on chemistry relevant to production of plastics, synthetic fibers, paints, coatings, adhesives and many other chemical products. Prepares students for work in interdisciplinary macromolecular applications.
- 3+4 Pre-Pharmacy – Provides opportunity for students to enroll directly into a Doctor of Pharmacy program and earn their B.S. degree in chemistry based on successful completion of first-year pharmacy school coursework.

BACHELOR OF ARTS (B.A.) IN CHEMISTRY
Provides an excellent foundation in chemistry with ample opportunity for breadth of study, allowing students to develop careers in chemistry-related areas, pursue dual majors or design an interdisciplinary degree.

BACHELOR OF SCIENCE IN SECONDARY EDUCATION (B.S.E.) AND CERTIFICATION IN CHEMISTRY
Provides opportunity to combine broad training in the physical and biological sciences with extensive coursework in professional education to prepare students for careers in teaching and chemical education.

MINORS AVAILABLE
Chemistry, Biochemistry, Environmental Chemistry

MINORS OF INTEREST TO CHEMISTRY MAJORS
Math, Physics, Biology, Environmental Science

Explore Scientific Research
Chemistry majors complete at least one semester of research in collaboration with faculty on campus. Students are regularly accepted into summer Research Experiences for Undergraduates (REU) programs offered by the National Science Foundation.

“The research opportunities, access to quality instrumentation in the lab, high academic standards and amazing professors at Millersville have allowed me to be successful.”

– David Walton, Chemistry with mathematics minor, ’12
CLUBS AND ACTIVITIES

American Chemical Society (ACS) – The Millersville University student chapter is an active group of students interested in chemistry. The chapter is regularly recognized at the National ACS Meeting for its activities and services. The group promotes chemistry on campus, sponsors seminar speakers, arranges field trips to local industries and laboratories, sends representatives to scientific meetings, arranges for members to serve as peer advisors to incoming freshmen, and plans student-faculty social activities. The Millersville student chapter has been the recipient of several national awards.

INTERNSHIPS

Students have opportunities to participate in internships, earning academic credit and, in most cases, income while gaining valuable professional experience. Internships are offered in partnership with local industries. They provide experience in areas such as analytical methods and instrumentation, and new product development and testing in polymers, nanotechnology products, coatings and formulations.

DEGREE CERTIFICATION

The Department of Chemistry at Millersville University is approved by the Committee on Professional Training of the American Chemical Society (ACS) and is authorized to grant ACS-certified degrees in chemistry.

ABOUT OUR GRADUATES

Recent graduates have gone on to graduate programs at the University of Pennsylvania, Drexel, Caltech, UC Irvine, University of North Carolina at Chapel Hill, UCLA, Cornell, Princeton, Penn State-Hershey, Rutgers, University of Michigan, University of Arizona, Ohio State, University of Pittsburgh and Texas A&M.

Graduates choosing to go into industry have been employed by companies such as Dow Chemical, Teva Pharmaceuticals, DuPont, GlaxoSmithKline, Merck, Eurofins, Glatfelter, Analytical Services, Global Foundries, Bimax and Applechem.

FACULTY

All full-time faculty have earned a Ph.D. in chemistry and collectively reflect a diversity of expertise across chemical disciplines. Faculty members maintain active research programs in their areas of interest, working directly with chemistry majors on a range of research projects.

FACILITIES

The chemistry department occupies the top two floors of the south wing of Caputo Hall. It houses chemistry faculty offices, and eight fully equipped instructional labs with specific instruments relevant to sub-disciplines (there is no lab fee, nor is there any breakage fee). Additional specialized spaces include:

- **Instrument Rooms** – Contain a wide range of analytical equipment used by students for instructional labs and research, including 400-MHz Nuclear Magnetic Resonance, Infrared, Ultra Violet-Visible, Raman, Atomic Absorption, and Fluorescence spectrometers; High Performance Liquid Chromatograph, Gas Chromatograph – Mass Spectrometer and Atomic Force – Scanning Tunneling Microscope.

- **Student Study Room** – Equipped with computers, whiteboards, reference books and textbooks.

- **Individual Faculty/Student Research Labs** – Individual faculty to conduct research in collaboration with chemistry students.

All of our students are taught the skills of research, analysis and presentation, which contribute to success in any career.