JUNIATA COLLEGE

think·evolve·act

Chemistry

The Juniata Advantage

- **Facilities and Instrumentation:** Juniata students have nearly **unlimited** access to a variety of major scientific instruments, including a nuclear magnetic resonance spectrometer, laser-induced breakdown spectrometers, infrared and Raman spectrometers, gas chromatograph-mass spectrometers, and a single crystal X-ray diffractometer. In some cases, Juniata is **one of only a few undergraduate colleges** to share these instruments with students.
- **Research:** Participate in research during your **first year.** Get involved in a single faculty research project and follow it through until graduation, or work with a variety of faculty on several different projects. Between 10 and 20 Juniata students present at national American Chemical Society (ACS) and American Society of Biochemistry and Molecular Biology (ASBMB) meetings every year and at Juniata's Liberal Arts Symposium.
- **Experience:** Obtain a **summer research fellowship** on campus, at a corporate lab, or with labs at research institutions such as Harvard, Berkeley, or Penn State. Experience is one more reason that Juniata is highly ranked nationally in the number of graduates who go on to earn chemistry and biochemistry Ph.D.s.

"The chemistry department at Juniata offers plenty of opportunities for hands-on laboratory experience and chances to do original research with professors."

—Cara Stough '15
CHEMISTRY

Juniata's Outcomes

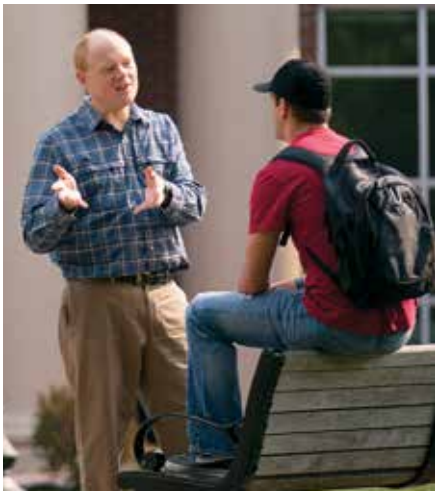
Juniata chemistry graduates **pursue research at graduate schools** such as Carnegie Mellon University, the California Institute of Technology, Johns Hopkins University, Princeton, University of North Carolina, Cornell, Harvard, and the University of Pennsylvania. They've found **careers in labs** at Bristol Myers Squibb, the National Institutes of Health, and the Pennsylvania State Police. **In the past 10 years, nearly every chemistry student who applied to graduate school has been accepted.**

Our Recent Graduates

- Richard Burgan '15, Amelia Kepler '15, Brandon Leckemby '15, and Duc Vu '15 are each **employed as chemists** at Eurofin Labs in Lancaster, Pa.
- Peter Defnet '15 is currently enrolled in an **analytical chemistry doctorate** program at the University of Washington, Seattle.
- Clarissa Diniz '14 is currently **attending medical school** at Johns Hopkins University.
- Rachel Rowlands '15, who **received an Amgen scholarship while at Juniata**, is enrolled in a doctoral program in medicinal chemistry at the University of Washington, Seattle.
- Amanda Skoner '12 is currently employed **teaching high school chemistry.**

A Sampling of Courses

Advanced Biochemistry
Advanced Inorganic Chemistry
Advanced Organic Chemistry
Analytical Chemistry
Bioanalytical Chemistry
Chemical Synthesis
The Chemistry of Art
Inorganic Chemistry
Instrumental Methods
Integrated Chemistry: Biochemistry
Integrated Chemistry: Organic
Integrated Chemistry: Principles I & II
Organic Chemistry
Physical Chemistry I & II
Wine Chemistry



Faculty

At Juniata, 100 percent of chemistry faculty have earned Ph.D.s, and they serve, first and foremost, as professors. But, they also publish in a variety of journals from *Analytical Chemistry* and the *Journal of Forensic Identification* to the *Journal of Cell Biology* and *The Proceedings of the National Academy of Sciences.* Build your portfolio by researching alongside them. Check out more student and faculty chemistry research at: **http://www.juniata.edu/academics/departments/chemistry/research.php**

Chemistry Department Chair: Richard Hark, B.S., University of Rochester, Ph.D., University of Pennsylvania.

Your Career Path

Check out the chemistry department web page to explore your career path.

JUNIATA COLLEGE

2015

A Chemistry POE Story

In Juniata's chemistry department, students learn in a cohesive, experimental way from the very first introductory course. Instead of focusing on one aspect of chemistry at a time, our introductory courses—the Integrated Chemistry series—will weave together important concepts that form the basis of the five sub-fields of chemistry. During your first two years, you will develop laboratory skills, practice problem solving, and apply your chemical knowledge to solve real-life problems.

As you progress through your time at Juniata, study each sub-field of chemistry in more depth and conduct original research with chemistry faculty, all while learning to use high-quality instrumentation to solve contemporary chemical challenges.

Juniata's chemistry department is a community composed of faculty and students with diverse talents and interests who work together in group problem-solving sessions, labs, and research experiences. As a member of this community, you will gain the knowledge, communication, and problem-solving skills to prepare for the chemistry workforce. But don't just take our word for it.

"There are many chemistry research opportunities at Juniata that allow you to contribute to not only the College, but also to the actual chemical field," says Christian Gehman '15.

Student Opportunities

Juniata's Facilities: For research of all kinds, Juniata's **von Liebig Center for Science** is outfitted to help you conduct high-quality research as an undergraduate.

Study Abroad: Popular sites for chemistry study include the University of Leeds (U.K.), the University of Lille (France), Philipps-Universität Marburg (Germany), and Guanajuato (Mexico). **Juniata has study abroad programs on every continent, except Antarctica.**

Undergraduate Research: Conduct research in a topic of your choosing with the guidance of a faculty member. Then, present at conferences—like Juniata's Liberal Arts Symposium or the annual American Chemical Society meetings. ***Recent examples:*** Nicole Dengler '15, "Water Chemistry in Relation to Microorganism Distribution in Raystown Lake" and Peter Defnet '15, "Provenance Determination of Cassiterite Using Laser-Induced Breakdown Spectroscopy."

Honors: In addition to earning Fulbright Fellowships, several Juniata chemistry grads have won **National Science Foundation Graduate Research Fellowships.** One student also won the national **Iota Sigma Pi Undergraduate Award.** Sound intimidating? We'll mentor you through the application process.

Additional Accreditation: The Juniata chemistry program is approved by the American Chemistry Society (ACS). Students completing a baccalaureate degree that meets the ACS Guidelines will receive an 'ACS-certified degree' in chemistry or biochemistry.