About the Program

Students choose the Slippery Rock University chemistry program for the high-quality instruction, ability to work one-on-one with professors and the low-cost tuition. As a SRU chemistry student you can:

• Take hands-on laboratory courses to develop laboratory skills, chemical analysis techniques and analytical thinking capabilities.
• Acquire a theoretical and experimental background for work in industry, education, medicine, research or admission to a graduate program of study.
• Participate in faculty-directed research and present results at regional and national meetings.

ACS

SRU’s bachelor of science in chemistry is certified by the American Chemical Society. The program offers students a broad-based and rigorous chemistry education that provides them with the intellectual, experimental and communication skills to participate effectively as scientific professionals. A certified degree signifies that a student has completed an integrated, rigorous program that includes introductory and foundational course work in chemistry and in-depth course work in chemistry or chemistry-related fields. The certified degree also emphasizes laboratory experience and the development of professional skills needed to be an effective chemist. Certification gives a student an identity as a chemist and helps in the transition from undergraduate studies to professional studies or employment.

Biochemistry

The biochemistry students take additional courses in chemistry and biology that allows them to focus on the techniques most useful in biochemistry, pharmacy and medical related fields. SRU has a 3+3 affiliation with the Lake Erie College of Osteopathic Medicine’s School of Pharmacy leading to a BS in chemistry – biochemistry after successful completion of three years at SRU plus one year at LECOM. A doctor of pharmacy is earned on completion of the program at LECOM.

Environmental

The environmental focus includes air and water quality assessment and geochemistry courses, that prepare students specifically for analysis of air, water and soil samples. Students also take “Introduction to Geographic Information Science”. These courses cover standard concepts and procedures performed by those working for environmental protection agencies and consulting firms.

Forensics

An emphasis in forensics includes “Forensic Analysis” lecture and laboratory to provide theory and hands-on laboratory experience for forensic-related careers. It is strongly recommended that students also take “Introduction to Criminology and Criminal Investigations”.

Upon completion of any of the programs/concentrations, students can enroll in the master of education degree program for secondary instruction. Preparation for state certification in general science is also possible.

Internship and Research Experiences

SRU students have the opportunity to further develop their areas of interest by participating in summer internships. Announcements are posted and applications are typically due in early March. Local internship sponsors include The Carnegie Science Center, PPG, The Pittsburgh Tissue Institute, Duquesne University and Kent State University. SRU chemistry majors have participated in research experience for undergraduates programs at numerous universities throughout the U. S. These summer programs are funded by the National Science Foundation and provide grant stipends, housing accommodations and, in some cases, travel assistance. Through internships and REU programs, students gain valuable research and analytical skills. Students also begin the process of professional networking, which often leads to job offers and references.
Majors/Concentrations
- Chemistry (BA)
- Pre-Masters of Education
- Chemistry (BS)
- ACS Certified
- Biochemistry
- Biochemistry LECOM Pre-Pharmacy 3+3
- Computational Chemistry
- Environmental
- Forensic
- Pre-Masters of Education

Minor
- Chemistry

Career Opportunities
Slippery Rock University chemistry program graduates are working in research and development, sales and management. Others are teaching at the secondary and college levels. Still others are enrolled in post-graduate programs. These careers clearly indicate that chemists can choose from a range of career opportunities to match their interests and goals.

There are many opportunities in the medical profession for chemists, conducting research leading to quality-of-life-improvement medications, pharmaceuticals and forensics. Additional opportunities include long-range research either in academia or industry leading the way for innovative products to enhance our lifestyle. Opportunities in environmental protection with federal or state agencies, such as the EPA, DEP and OSHA are also possibilities.

Chemists can also elect to teach at the secondary or university level upon completion of the appropriate graduate program. Chemists use their knowledge of science and mathematics along with highly developed critical-thinking skills to solve a variety of problems. With these assets, chemists are valuable to companies because they can be involved in the many aspects of product development, quality control, quality assurance and safety.

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