

Department of Chemistry Henson School of Science

MAJOR

- Chemistry

MINOR

- Chemistry

About the Department

The primary mission of the Salisbury University Department of Chemistry is to provide a comprehensive, student-centered undergraduate program of study that meets the changing needs of today's professional chemists in the industrial, health and education communities. To fulfill this mission, the Department of Chemistry offers different tracks leading to a B.S. in chemistry, including two tracks that are certified by the American Chemical Society (ACS).

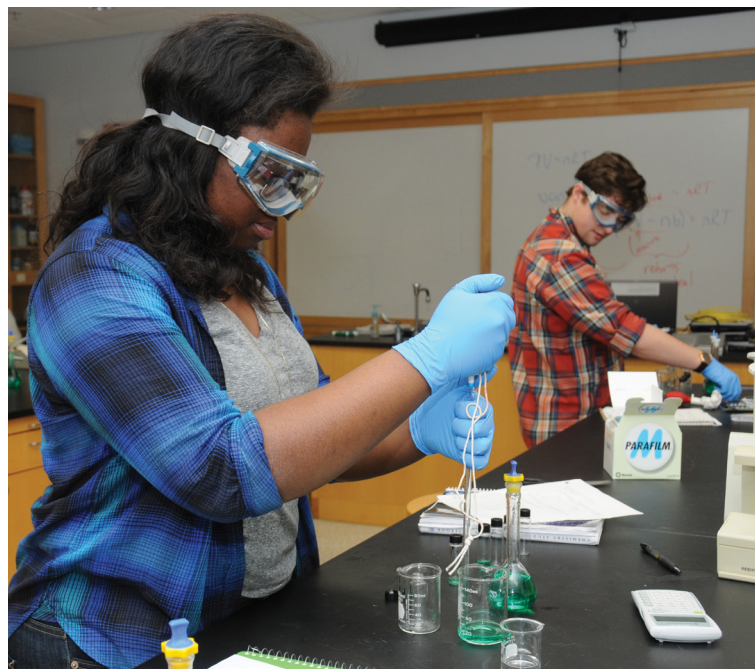
As an ACS-approved baccalaureate program, SU chemistry offers a broad-based and rigorous chemistry education that gives students intellectual, experimental and communication skills to become effective scientific professionals. ACS approval is earned and maintained only by departments staffed by accomplished faculty, having a modern and well-maintained

infrastructure, and providing a coherent chemistry curriculum.

Our ACS certification assures employers that our programs foster the development and expression of rational thought and that students are engaged in a high quality program. The ACS-certified tracks help prepare students for admission to Ph.D. programs in chemistry, related professional fields (such as medicine and pharmacy) and positions in the chemical industry. SU has seven major tracks that lead to a B.S.:

- ACS-certified Chemistry
- ACS-certified Biochemistry
- Chemistry
- Biochemistry
- Chemistry - Secondary Education
- Accelerated Pharmacy
- Pre-Health Professional

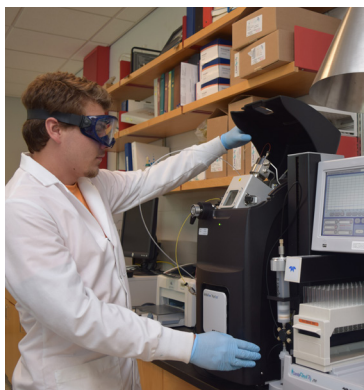
The accelerated track for pharmacy permits the student, if accepted at the University of Maryland School of Pharmacy or the University of Maryland Eastern Shore School of Pharmacy, to complete only three years at Salisbury University and then earn a B.S. in chemistry from SU after successful completion of one year of courses at pharmacy school.



CAREER OPPORTUNITIES

Students who have graduated from the Chemistry Department have gone on to careers in:

- Pharmacy
- Medicine
- Forensic Lab Science
- Industrial Chemistry
- Teaching
- Department of Defense



“Chemistry is fun, interesting and important, but our real purpose here is always teaching – using research to help students learn.” – Dr. Stephen Habay

Chemistry Faculty

The chemistry faculty at SU are accomplished in diverse fields of chemistry, including biochemistry, inorganic, organic, analytical and physical chemistry. Though they bring broad-based experience and expertise, all are focused on providing an excellent chemistry education. This means that the faculty use innovative teaching methods and technology and are committed to helping students “learn how to learn” in addition to understanding the basic concepts of chemistry. As a department serving undergraduates, SU chemistry students work directly with faculty (not graduate students) in classes and on original research projects. The department is large enough to provide access to advanced instrumentation and technology but small enough that the faculty tend

to know chemistry majors by sight and name. Many of the faculty hold review sessions, problem sessions and homework sessions in addition to their regular office hours. Faculty and students interact at department ice cream socials and seminars, via the student-led Chem Society, and while performing demonstration shows to visiting student groups. The chemistry faculty is actively committed to student success.

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CONTACT INFORMATION

For more information about the Chemistry Department:
410-543-6480

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Hands-on Opportunities

As a department, we take pride in the opportunities provided to our students to engage in hands-on learning through the use of varied, state-of-the-art and widely applicable instrumentation. In their courses, chemistry majors use the 400 MHz NMR spectrometer to determine the structure of molecules; FTIR, UV-Visible and fluorescence spectrophotometers to quantify and determine features of substances; gas chromatographs, a GC-mass spectrometer, a high performance liquid chromatograph and an LC-mass spectrometer to determine the purity of compounds; an automated flash purification system to purify crude materials; an atomic absorption spectrometer to determine what elements are in a solution; a gel imager to visualize DNA and proteins; a glove box to handle substances under inert atmosphere; and many others. Chemistry students will further learn how to become independent scientists through our research program, which allows them to contribute to solving real-world problems while applying theory and learning practical skills. In addition, many students take advantage of various competitive internal and external funding opportunities in order to carry out research with our

faculty. Some students start research even as freshmen or sophomores. Prospective teachers will also find many hands-on opportunities related to teaching, including paid laboratory and grading assistantships, leading supplemental instruction sessions, and participating in our outreach demonstration activities in local schools.

Chemistry Professions

The career options that can be considered by obtaining a chemistry degree are as broad as the definition of chemistry itself – the study of matter (what you can touch, smell, see or feel).

Many chemists study how materials can be transformed into products valuable to our everyday lives (car parts, agricultural products, medicines, plastics for toys or medical equipment, and more). Chemists may not only be involved in the research and development of products, but their manufacturing, sales, and use in our everyday lives.

Chemistry is also fundamental to the molecular basis of life and how medicines interact with biological systems. As such, a more interdisciplinary chemistry degree, the biochemistry track, is an excellent starting point for many careers that lay on the intersection between biology and chemistry. In

particular, it is an excellent major for those preparing for careers in medicine, pharmacy, forensics, dentistry or other health-related professions.

Some companies hire chemists who also have a background in business in their corporate offices because of their additional technical background and expertise. A substantial number of chemists enter law school after graduation due to the need of attorneys with expertise in patent law, environmental law, and occupational health and safety law. These attorneys would require a background that only a technical degree like chemistry can provide.

It would be impossible to state all the options available to a chemistry major, but you can find more information about a number of careers typically open to those with a chemistry degree on the ACS website (www.acs.org) via the careers link.

The knowledge and skills gained through the study of chemistry open many exciting career avenues one may pursue; more than most students might initially think. Studying and exploring these opportunities in the Chemistry Department at Salisbury University can be an exciting prospect. Contact us with any questions you may have about our program.

FACULTY

Chair

- Professor Stephen A. Habay, Ph.D.
University of Pittsburgh

Professors

- Seth Friese, Ph.D.
University of California, San Diego
- Robert D. Luttrell, Ph.D.
University of Tennessee, Knoxville
- Katherine Miller, Ph.D.
Washington University, St. Louis

Associate Professors

- Anita Brown, Ph.D.
University of Delaware
- Alison Dewald, Ph.D.
University of Virginia
- Jose Juncosa, Ph.D.
Purdue University
- David Keifer, Ph.D.
Indiana University, Bloomington
- Joshua Sokolowski, Ph.D.
Pennsylvania State University

Assistant Professors

- Jessica Heimann, Ph.D.
Yale University
- Zulma Jiménez, Ph.D.
Florida State University

Senior Lecturers

- Brent Alogna, B.S.
Salisbury University
- Mindy Howard, B.S.
University of Oklahoma at Norman

Lecturers

- Danielle Provost, B.S.
Salisbury University

Administrative Assistant II

- Alexis Kelly, B.A.
Salisbury University



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