

Studying Chemistry at Sweet Briar College

Fact Page and FAQs for Prospective Students and their Parents



Sweet Briar supports both a BA and a BS major in Chemistry.

Sweet Briar also offers a BS degree in Biochemistry and Molecular Biology (“B&MB”) – a joint major program of the Chemistry and Biology Departments.

A distinguishing feature of the Chemistry program at Sweet Briar is our approach to teaching the introductory courses. Students begin their studies in Chemistry with General Chemistry (Chem 131) in the fall. From there, students can progress to either Organic Chemistry I (Chem 231), Analytical Chemistry (Chem 216) or an Introduction to Quantitative and Inorganic Chemistry: “Q&I” (Chem 252). Most students will progress to Organic Chemistry in the second semester. The second year courses typically begin with Organic Chemistry II (Chem 232), followed by “Q&I”. All of these classes come with associated laboratory courses as well. Our General Chemistry course has been re-tooled to serve as an effective pre-Organic course. Our Q&I course serves to prepare students for intermediate and advanced study in Analytical, Instrumental Analysis, Inorganic, and Physical Chemistry. This sequence provides flexible options for students, depending on their background and professional goals. For example, students interested in chemistry, biology, pre-medical or forensic-environmental science would take General Chemistry, followed by Organic I in the first year. Alternatively, environmental science students might choose to take Analytical Chemistry in their second semester. Students interested in pursuing physics or engineering would take General Chemistry followed by an Introduction to Quantitative and Inorganic Chemistry.

Degree requirements for the BA degree include the four course introductory sequence, and an introductory Analytical course, two semesters of Calculus, Intermediate Laboratory, three intermediate/advanced Chemistry electives, and a year of Physics.

Degree requirements for the BS degree include the four course introductory sequence, and an introductory course in Analytical, a year of Calculus and calculus-based Physics, Intermediate Lab, a year of Physical Chemistry, two advanced Chemistry electives, and a semester-long Senior Research project under the supervision of a faculty member.

The B&MB degree requires advanced study in both Chemistry and Biology, including Genetics, Microbiology, Cell and Molecular Biology, and a year of Biochemistry; as well as a semester-long faculty-directed undergraduate research project in either department.

Class sizes vary in Chemistry. The largest is typically General Chemistry with sections of around 30 students followed by Organic Chemistry with sections around 20 students. All introductory laboratory sections are capped at between 12-16 students. The intermediate & advanced courses usually contain 5-6 students (on average) in each section. Intermediate level labs are capped at 8 students and advanced labs are typically 2-5 students/section.

For Students motivated to pursue graduate study after Sweet Briar, the Honors Program provides for students to earn Departmental Honors through a three-semester independent research study. Students working on Departmental Honors work with a faculty mentor, and the project culminates in a written Thesis and an Oral Defense in front of a Thesis Committee. Students are also afforded the opportunity for College-wide Honors through the Honors Degree program.

Sweet Briar Chemistry Alumnae can be found in or are now alumnae of the top graduate programs across the country including: CalTech, Princeton, Harvard, Purdue, Penn State, Ohio State, Duke, UNC, Vanderbilt, U Cal Riverside, Florida State, and the University of Virginia. Sweet Briar Chemistry Alumnae also enjoy a high success rate at gaining entry into Medical, Dental, Pharmacy, and Allied Health programs in the US. Students interested in the business and manufacturing aspects of Chemistry have been successful at getting placed into positions immediately upon graduation.

All faculty members in Chemistry maintain active faculty-directed undergraduate research programs that are funded by both internal and external agencies. The Department has a strong record of obtaining funding from the major federal grant sources including the National Institutes of Health (NIH), the National Science Foundation (NSF), as well as regional sources including the Jeffress Memorial Trust, the Gwathmey Foundation, the State Council of Higher Education for Virginia, and the Commonwealth Health Sciences Research Board. Faculty members stay active in their disciplines by participating in professional organizations and by attending a variety of professional meetings including both research and education.

The Chemistry Department enjoys a close working relationship between faculty, staff, and students. The “Chemistry Club” (SAACS) is open to all science/math students and sponsors a number of fun events each year including The Chemistry versus Physics Bowling Challenge, Science Nerd Movie Night, The Periodic Table (a lunch discussion table), Brownie Girl Scout Science Try-It Day, Mole Day Fun during National Chemistry Week, and a regional Science Fair for elementary and middle school children.

The Chemistry Department Faculty and Staff includes:

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**Have Questions or Need More Information?
Call or email us!!**