

FAQs: Introductory Chemistry at Tufts

Tufts University Department of Chemistry

What Chemistry majors are there, and where can I learn more about them?

We have four majors: Chemistry, Biochemistry, ACS-Certified Chemistry, and Chemical Physics. To see required classes for each major and possible 4-year course schedules, Google "Tufts Chemistry" or go to chem.tufts.edu, click on the *Undergraduate* tab and then click on the *Majors and Programs* link.

I want to be a Chemistry / Biochemistry major. What should I take my first semester?

We recommend you take Chem 1 or Chem 11. Chem 1 is the introductory chemistry class required by all chemistry majors, including biochemistry and chemical physics. Chem 11 is a more intensive version of the same course. We also encourage you to enroll in Math 32 (Calculus I), since it is also required by all chemistry majors listed above.

What is the difference between Chem 1 and Chem 11?

Chem 1 is a large class with two sections of 150-200 students each. Chem 1 has no prerequisites. Chem 11 is a smaller class of about 50-90 students, and it has a prerequisite of a Chem AP Exam of 3 or better (or comparable preparation; ask us if you are interested!). Chem 1 and Chem 11 cover the same material, but Chem 11 moves more quickly through introductory material and covers advanced topics in greater depth. The labs are identical, but the lecture portion for Chem11 has one additional weekly seminar where Chemistry professors present their research and may answer questions about research opportunities in their labs.

Do Chem1 and Chem11 prepare me equally well for upper-level coursework?

While Chem11 is more intensive, both Chem1 and Chem11 fully prepare students for upper-level courses (and, eventually, for a wide range of science careers!). Chem 1 and Chem 11 ultimately cover the same material and the difficulty of their final exams is similar.

I am interested in the Biochemistry major. Should I start with Chem 1, Chem 11, or Bio 13, or should I take both Chem and Bio in my first semester?

When selecting courses for their first semester, students should objectively evaluate their preparedness for college-level science courses. For the Biochemistry major, we recommend students with excellent preparation (for instance, students who scored highly on Chemistry and/or Biology AP exams) to take both Chem 11 and Bio 13 their first semester. Students with good preparation (success in upper-level chemistry and biology classes in high school) are recommended to take one lab science (either Chem 1 or Bio 13) as well as Math 32 their first semester.

I have pre-matriculation credit that exempts me from Chem 1 and Chem 2. Should I skip these courses and take Chem 51 (Organic Chemistry I)?

This is permitted for students who earned a score of 5 on the Chemistry AP exam. However, even the most rigorous high school class may not be a perfect predictor of performance in college-level chemistry. We have found that many students benefit from foregoing this exemption to take Chem 11 and Chem12, which are specially geared for first-year students with strong science backgrounds.

I am interested in research. How do I get started doing research at Tufts?

The best way to get involved in research in any department at Tufts is to 1) visit departmental seminars and journal clubs that sound interesting, and get to know the graduate students and professors there; and 2) read the research labs' websites, find research that interests you, read some of their recent articles, and then contact the professor and ask to learn more. Be patient, as it may take some weeks or months of polite inquiry to secure a research position. Generally, we recommend that you complete at least one lab course at Tufts before engaging in research, and individual research groups may have preferred courses that they request prior to starting research.

Where can I meet other students at Tufts interested in chemistry and science?

Tufts has student-run chapters of the American Chemical Society and the American Society for Biochemistry and Molecular Biology, and there are many other specialized interest groups such as the Tufts NeuroNetwork.