

If you are interested in concentrating in Chemistry, other Science/Engineering concentrations, and/or Premed, there are **two tracks of chemistry courses** you can take during the first two years of college:

(Students are able to mix and match different courses below. Please reach out to us at chemistrydus@fas.harvard.edu for advice.)

Fall Spring Fall Spring
Track 1: LPSA / LS1a → PS11 → Chem 17 → Chem 27
 General Chemistry Organic & Biochemistry

Fall Spring Fall Spring
Track 2: Chem 10 → Chem 20 → Chem 30 → Chem 40
 General Chem. Organic Chem. Inorganic Chem.

LPS A v.s. LS 1a

Although LPS A and LS 1a take different approaches to studying chemistry and biology, either class will prepare you for later science classes.

LPS A is particularly important for students with little or no chemistry background who plan to take PS 11 in the spring. The 1st half of LPS A is a study of general chemistry, and the 2nd half explores molecular & cellular biology.

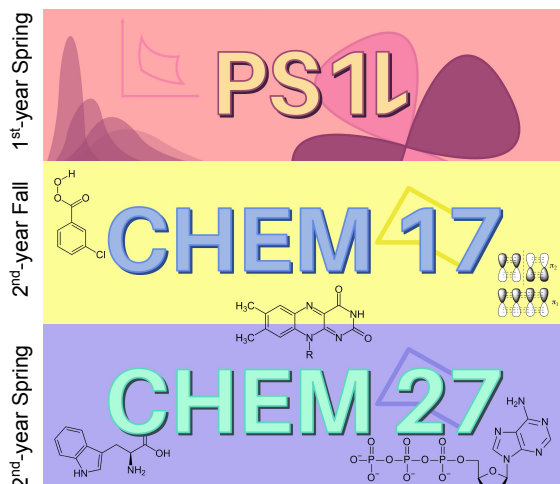
It is beneficial to already have some familiarity with basic chemical principles when taking LS 1a. LS 1a integrates chemical & biological principles throughout the course and applies these concepts to biological problems (e.g. HIV, cancer).

1st-year Fall

LPS A
Life & Physical Sciences A:
Foundational Chemistry
and Biology

OR

LS 1a
An Integrated
Introduction
to the Life Sciences:
Chemistry, Molecular
Biology, and Cell
Biology

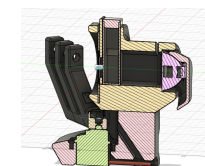


The biology and chemistry placements tests have been carefully constructed to give good advice about which course is most appropriate for you based on what you have learned in high school. You should take the course that is most appropriate for your background.

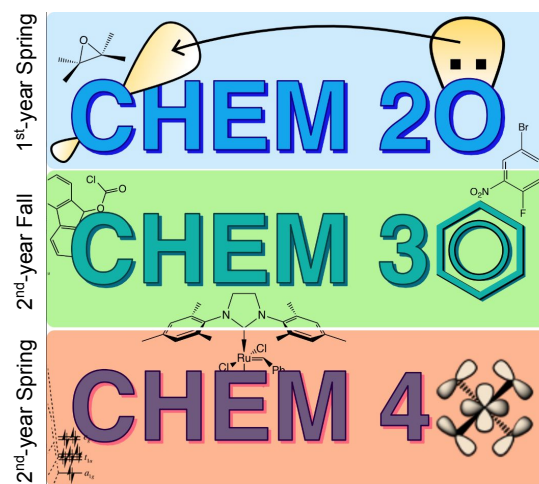
Introducing CHEM 10*

CHEM 10 offers an advanced introduction to the fundamental theories of quantum mechanics and statistical mechanics and their role in governing the behavior of matter. It is designed for students with strong high school chemistry background to dive into the *how's* and *why's* behind the chemical principles they have learned, and to see their wide applications including electronics, solar energy conversion, medical imaging, and the stability and dynamism of living systems.

Calculus will be used extensively, and students will learn numerical simulations and instrument control with MATLAB. In the weekly laboratory sections and the final project, students construct technical instruments that they then use in directed and open-ended explorations of the core concepts of the course.



Prototype of the spectrometer to be built in CHEM 10!



*Chem 10 is offered starting 2023 fall by building on the success of PS10 with an expansion of hands-on labs. (PS10 is no longer offered.) Chem 10 counts for two semesters of general chemistry requirement for the Chemistry Concentration and for most medical schools.

For most medical schools, the four courses in Track 1 fulfill the chemistry requirements for premed students (2 General Chemistry, 2 Organic Chemistry and 1 Biochemistry); Chem 10→20→30→27 also fulfills the same requirement. For the complete list of courses that satisfy the Premed course requirements, please refer to the premedical blue book at <https://careerservices.fas.harvard.edu/> and email premed@fas.harvard.edu with any questions.

If you are interested in exploring a chemistry lab but do not plan to major in science, our **NEW** course **Chem 4C** can be a great choice. Chem 4C is a science distribution course for anyone with limited chemistry experience.

Chem 4C

satisfies the undergraduate science distribution requirement

- An experimental and research-based course that focuses on the intersections of chemistry with the life, physical, & social sciences;
- Designed to be engaging and enriching for students of all backgrounds;
- Students learn how to read and communicate scientific results, and run experiments using an array of sophisticated instrumentation while making connections to the world through chemistry.

Reach Us

Office of the Undergraduate Studies in Chemistry

chemistryDUS@fas.harvard.edu

Chem 10: Lu Wang wang29@g.harvard.edu

Chem 4C: Zach Zinsli zinsli@g.harvard.edu

