# GETTING STARTED WITH BIOLOGY & GENERAL CHEMISTRY AT DARTMOUTH

## BIOLOGY

**Determining Where to Start with Biology:**

- To help students determine if they are sufficiently prepared to enter a foundation (lab) course directly, the biology department has established an online self-assessment exam for students. This self-assessment is a helpful way to determine your biology starting point. The Biology Placement/Advisory Test is available on the New Student Orientation Canvas Site.

**To gain clarity about your best starting point for biology courses at Dartmouth, students should check the Biology Department's website.**

- We also recommend having a conversation with a Pre-Health Advisor or Undergraduate Dean about taking BIOL 11 before enrolling in the foundation courses. There is a BIOL 11 course offered every term. BIOL 11 has no labs, focuses on problem-solving in biology, and prepares students to take the required laboratory-based courses.

**BIOL 11 (various topics offered – check this bio dept website to learn more!**

- This course focuses on problem-solving in biology and prepares students to take the required lab-based foundation courses. This year, Bio 11 in the spring (Foundations of Life: Human Biology) will be especially good for students who had very little human bio in high school to set a foundation.
    - **BIO MAJORS:** fun fact-if taken BEFORE any foundation courses, BIO 11 WILL COUNT towards your major.

**BIOL 9 is another possible starting point.**

- It will be offered during Fall '26 and Spring '27. BIOL 9 is a hands-on class that is entirely focused on laboratory experiments and interpretation to have the experience of thinking like a scientist.
    - **BIO MAJORS:** fun fact- if taken BEFORE any foundation courses, BIO 9 WILL COUNT towards your major.

**Bio 4: "The Evolution of Cancer,"** is another course being offered in Fall 2026. It does not count towards the major, but some content will be directly connected to medicine.

**The Foundation Lab Courses:**

While any foundation course would "count" as a medical school prerequisite, to best prepare for the MCAT and medical/dental/veterinary school, we highly recommend taking BIOL 12, BIOL 13, AND BIOL 14, even though taking two foundations fulfills the prerequisite.

**Dartmouth's biology foundation courses can be taken in ANY order.**

- BIOL 12: Cell Structure and Function
- BIOL 13: Gene Expression and Inheritance
- BIOL 14: Human Physiology
- BIOL 16: Ecology

**Other courses in Biology**

- For Dental and Veterinary school: Microbiology and Anatomy are additional requirements.
- **Texas Medical and Dental schools require more biology credit than most other med/dental schools. 14 semester hours vs 8 for most medical/dental schools. At Dartmouth, a course + lab = 4.5 semester hours (just a course or just a lab=3.5 semester hours)**

## GENERAL CHEMISTRY

**General Chemistry:**

- An introduction to the fundamental concepts of chemistry and their application to real-world problems in a college-level general chemistry curriculum is important preparation for several majors and a component of the pre-health (medical/dental/veterinary) curriculum.

**At Dartmouth, the General Chemistry curriculum consists of:**

- Chem 5 and Chem 6 **or** Chem 11 (completion of which also provides credit-on-entrance (CR) for Chem 5).
  - Chem 5 and Chem 6 are the standard track through general chemistry.
  - Chem 11 is a one-term general chemistry course designed specifically for students with significant prior exposure to chemistry.

**Prepare for your general chemistry course with the General Chemistry Canvas review site** before starting your General Chemistry course, especially if it has been a while since you took a chemistry course or if you did not have the opportunity to do so during high school. It is also helpful to review before taking a placement exam if it's been a while since you learned the material. This will help you hit the ground running in our short, fast-paced terms.

**Which general chemistry track (Chem 5 and Chem 6 or Chem 11) should I complete?**

- If you took the Chemistry AP exam and scored a 4 or 5 (or 6 or 7 on the IB Chemistry exam or A on the British A-level Chemistry exam), you have demonstrated a significant understanding of general chemistry principles. You will automatically receive credit-on-entrance (CR) for Chem 5 and be placed into Chem 11.

- Students with significant prior exposure to chemistry who are interested in taking Chem 11 and who do not have the AP, IB, or A-level scores listed above must take the Chemistry Placement test. The results from this test will guide your placement into the general chemistry curriculum.
    - The Chemistry Placement test is now live! You can find it on the New Student Orientation Canvas site.
    - If you are placed into Chem 11 as your starting point, upon completing this course you will also receive credit-on-entrance (CR) for Chem 5, if you do not already have this credit, thus completing the General Chemistry sequence.
- Students who did not take AP, IB, or A-level Chemistry or who do not have these AP/IB/A-level scores and who do not complete the Chemistry Placement test must enroll in Chem 5 as their first chemistry course. These students will complete the Chem 5 and Chem 6 sequence.

**Important note about prerequisites**

- Math 3 (first term of calculus) is a prerequisite for Chem 5 and Chem 11 and **must** be taken first.
    - If you receive credit-on-entrance (CR) for Math 3, you have the necessary math prerequisite to take Chem 5 or Chem 11.
    - Math 3 **cannot** be taken concurrently with Chem 5 or Chem 11. If you do not have credit for Math 3 and want to take general chemistry in your first year at Dartmouth, you will need to complete Math 3 during the fall term.
    - Math 3 is sufficient mathematics for the pre-health curriculum. However, if you are considering a STEM major (e.g., Chemistry, Physics, Computer Science, Engineering), additional math will be required.
- Strongly consider reviewing algebra/calculus before taking a placement exam, or otherwise, before starting Math 1 or Math 3. If you might place out of Chem 5, also review a few hours ahead if you had otherwise had a strong background to get your mind back in it!