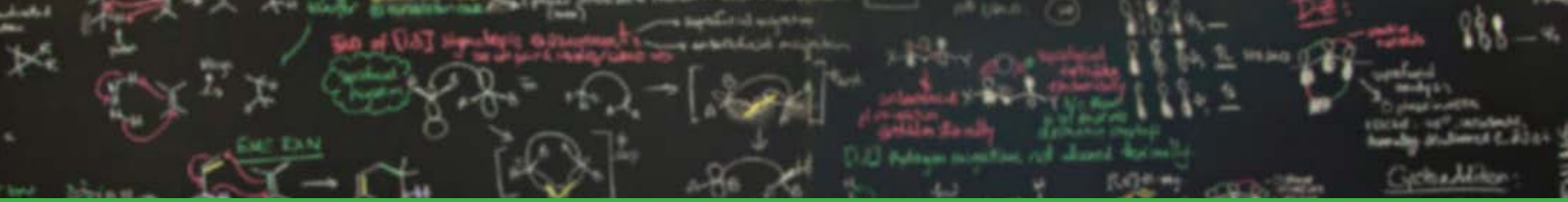
# Biological Sciences

**The Department of Biological Sciences offers students a range of courses that span from the subcellular to the ecosystem levels.** There are a variety of options for beginning the study of Biology at Dartmouth and the Department offers a placement/advisory test to help students choose the appropriate starting point. The placement/advisory test will be available to members of the class of 2022 over the summer via Canvas. Details about courses for first-year students can be found on our website (https://biology.dartmouth.edu/welcome-class-2022). Areas of faculty research are diverse, ranging from cell signaling to neurobiology to animal behavior, utilizing a wide range of organisms including bats, rice, worms, flies, and algae.  Faculty welcome undergraduate researchers as active contributors to faculty research projects. The Department also offers a foreign study program in tropical ecology in Costa Rica and the Caribbean each Winter term.

**Location:** Class of 1978 Life Sciences Center
**Phone:** (603) 646-2378
**Email:** biology@dartmouth.edu
**Website:** https://biology.dartmouth.edu/



# Chemistry

**The Chemistry Department welcomes the Class of 2022! Many of you will have taken a chemistry course in high school and may be interested in learning more about the properties of molecules.** Chemistry is the foundation for the life sciences, medicine, and materials science; additionally, a background in chemistry is required for other science majors and is integral to the preparation for medicine and other health careers. The Department offers majors in Chemistry, Biological Chemistry, and Biophysical Chemistry, and a 4+1 program to earn a Masters degree the year after graduation. The Chemistry faculty is committed to engaging and inspiring teaching, and their cutting edge research provides undergraduate research opportunities in biochemistry, materials chemistry, and the synthesis of new molecules with potential therapeutic or commercial applications. First-year students typically take general chemistry courses (Chemistry 5 and 6), or the one-term honors course Chemistry 10. Those with a score of 5 on the AP Chemistry exam will receive prerequisite credit for Chemistry 5. Others with a good background in chemistry are strongly encouraged to take the Chemistry 5 credit test during New Student Orientation. We look forward to meeting you at our Open House!

**Location:** Burke Laboratory
**Phone:** (603) 646-2501
**Email:** chemistry@dartmouth.edu
**Website:** https://chemistry.dartmouth.edu/

# Computer Science

**This is an exciting time to be a technologist and to see the impact of technology on our lives and the world.** We are excited to be training the next generation of technologists. Whether you are a computer scientist, neuroscientist, economist, linguist, biologist, earth scientist, or political scientist, there is no doubt the technology revolution is dramatically altering your field of interest. The twenty-two Computer Science (COSC) faculty offer courses and have expertise in everything from Robotics, to Computer Graphics, Computer Vision, Machine Learning, Mobile Computing and Sensing, Security, Computational Biology, and more. We offer a flexible major, minor, and modified major in Computer Science. Many of our students combine Computer Science with majors across the Arts and Humanities, Social Sciences, and Sciences. We also offer a 4+1 program in which you can earn your Masters degree with just one extra year of graduate-level courses.

Our introductory course—COSC 1—is designed to be accessible for students with no background in computer programming. Many students reflect that this course was one of their favorites.

**Location:** Sudikoff  Laboratory, Room 102
**Phone:** (603) 646-1358 | **Email:** susan.perry.cable@dartmouth.edu
**Website:** www.cs.dartmouth.edu

# Earth Sciences

**There has never been and more exciting and important time to study Earth, our home.** Working closely with their professors, our students are investigating the interconnectedness of Earth's systems, revealing how even small changes to one system can profoundly influence life. And how life, in both past environments such as those during the evolution of early life, and in the modern "Anthropocene," can influence Earth's systems.

Combining field studies across the globe with laboratory-based and theoretical studies, earth scientists at Dartmouth are addressing some of our most fundamental questions, such as how life on Earth began, and many of our most pressing challenges—dwindling energy and mineral resources, changing climates, water shortages—by integrating fundamental ideas from biology, chemistry, physics, engineering, and computer science. Our students are active participants in faculty research projects and go on to careers as geologists, environmental engineers, climate scientists, hydrologists, exploration geophysicists, space scientists, and oceanographers, among others. We work to provide a welcoming and friendly atmosphere for majors and non-majors alike who all share a common interest in how the Earth works.

**Location:** Sherman Fairchild Hall
**Phone:** (603) 646-9037
**Website:** http://earthsciences.dartmouth.edu/


# Engineering Sciences

**Welcome to Engineering Sciences! If you want to have an impact on the world, experience engineering, the most popular science major at Dartmouth—and equally popular with women and men.**
Our project-based approach emphasizes human-centered design, hands-on learning, teamwork, and creating working prototypes to solve real-life problems in medicine, energy, communications, and other areas of human need. Don't worry if you've never used a tool before. Our maker spaces and project lab instructors will teach you how to design and build your projects. We'll teach you how to pursue patents and start, finance, and grow a technology business. You can modify the Engineering major with any of the sciences, economics, environmental studies, math, public policy, or studio art. Computer science and physics majors can pursue a joint AB/Bachelor of Engineering program. We offer foreign study programs in Denmark, Germany, Hong Kong, and Thailand. We also offer numerous courses for non-majors so everyone can gain the problem-solving skills and technical savvy needed to make a difference in our increasingly technology-driven world.

**Location:** Thayer School of Engineering at Dartmouth, 14 Engineering Drive
**Phone:** (603) 646-2230
**Phone:** Jenna Wheeler, Undergraduate Programs Administrator (603) 646-3677
**Website:** engineering.dartmouth.edu

# Environmental Studies

**Environmental Studies examines the links between ecosystems and society based on a problem-oriented, interdisciplinary approach.** Environmental degradation poses a cascade of escalating problems from local to global scales. Training students to understand and address these challenges is our core mission, supported by courses and research opportunities on a diversity of topics such as global environmental science, agroecology, nature writing, ecological economics, and environmental policy and governance. To meet the needs of our students, we offer a major in Environmental Studies and three minors: Environmental Studies, Environmental Science, and Sustainability. We also offer a Foreign Study Program in Southern Africa, where students and faculty explore the links between ecological conservation and community-based human development.

CREDIT ON ENTRANCE AND ADVANCED PLACEMENT
Students who have scored a 4 or 5 on the Environmental Science CEEB Advanced Placement Examination will receive credit on entrance for Environmental Studies 2. Credit on entrance appears on the Dartmouth transcript but does not count towards the 35 credits required to graduate.

**Location:** Steele Hall, Room 112
**Phone:** (603) 646-2838
**Email:** kim.wind@dartmouth.edu
**Website:** http://envs.dartmouth.edu/

# Physics and Astronomy

**Majors in Astronomy, Physics, and Engineering Physics are designed to provide students with a solid foundation in analytic thinking, problem solving, and the fundamentals of Physics and Astronomy.** Our undergraduates can be actively involved in hands-on research at a variety of levels, from first-year projects, to summer internships and senior honors theses. The Astronomy foreign study program is based in South Africa at the South African Astronomical Observatory (SAAO), one of the darkest observatories on Earth. Our undergraduates' research projects include studies of active galactic nuclei, auroral plasma physics, the outer heliosphere, habitable planets, entanglement, quantum spin chains, quantum computers, ultra-cold atomic gasses, and ionospheric spacecraft...there's much to explore!

Introductory courses are offered at a number of levels; you can begin a major at Dartmouth even if you've never had any physics or astronomy before. There are also introductory sequences designed for students with advanced placement in just math, or in both math and physics. Information on specific tracks and placement, course sequences, and research activities led by our faculty, is available on the undergraduate and research pages of our Department website. We look forward to talking with you at our Open House during New Student Orientation.

**Location:** Wilder Laboratory, Room 105
**Phone:** (603) 646-2854 | **Email:** physics.department@dartmouth.edu
**Website:** physics.dartmouth.edu/undergraduate/information-new-students

**For information on the Science department not included in this newsletter, please see below:**

**Mathematics:** https://math.dartmouth.edu.