Engineering FAQs

What do engineers do?
Engineers apply science to create technological solutions to societal problems. They design devices, machines, processes, and systems to address problems and meet complex challenges. Engineers also advance the frontiers of knowledge through applied research.

How are engineers educated at Dartmouth?
Our increasingly technological world needs engineers who are not only broadly educated in technical areas but also skilled in teamwork and communication and who understand the importance of social context when creating and implementing human-centered engineering solutions.

• The engineering sciences major (AB degree) emphasizes a broad approach to engineering fundamentals to go with Dartmouth's undergraduate requirements in the humanities, social sciences, and a foreign language. Students gain a multidisciplinary perspective for solving real-world problems. See more about requirements for the major: https://engineering.dartmouth.edu/undergraduate/ab/majors/engineering-sciences

• The Bachelor of Engineering program (BE degree, accredited by ABET)—consisting of nine to ten courses beyond the AB—permits specialization equivalent to traditional undergraduate programs and prepares students to enter the engineering profession.

• Design thinking is infused throughout our curriculum and harnesses Dartmouth's strengths in both engineering and the liberal arts. Design thinking connects "what is the right problem to solve?" with "how can we solve it?" and is the connective tissue between engineering skills and liberal arts insight.

Can I design my own major?
A modified engineering sciences major allows students to create a cross-disciplinary major by taking six courses in engineering and four courses in the modifying area plus the necessary
prerequisites and culminating experience. See a list of pre-approved modified majors: https://engineering.dartmouth.edu/undergraduate/ab/majors/modified

The **engineering physics major** consists of seven prerequisites, six required courses, four electives and the culminating experience. Unlike a modified major, this major is an even balance of engineering and physics courses (five of each). It is good preparation for graduate work in engineering or applied physics.

The **biomedical engineering sciences major** consists of five to seven engineering sciences courses and four to six courses in biology, chemistry, and biochemistry. This major is appropriate for students interested in medical school.

**What about a minor?**

The **engineering sciences minor**—consisting of five courses in engineering sciences + five prerequisites in math and physics—is for students who want to complement their major in another subject with engineering.

The **minor in human-centered design**—consisting of six courses including engineering design and psychology—focuses on the process of innovation for addressing human needs.

The **minor in materials**—jointly offered by engineering, physics, and chemistry—is for students who want to complement their major with the study of materials science. It consists of four courses + the necessary prerequisites.

**Will I have time for anything else?**

Though rigorous, our program is flexible. The major takes up less than half of your Dartmouth coursework (modified majors require a few more courses). Over 25% of engineering majors carry a dual major or a minor in another subject, and all are encouraged to participate in foreign study programs, research opportunities and internships. Engineers also participate in sports, student groups, and other extracurricular activities.

**What if I need help?**

The road to an engineering degree can sometimes feel rocky when facing a variety of new challenges. Recognizing that some students may need extra help and encouragement, Thayer fosters a culture of cooperation and support, including the Dartmouth Emerging Engineers (DEE) program providing tutors and mentoring, and participation in the Student Wellness Check-in program offering coaching sessions with a trained listener.

**What can I do with an engineering degree?**

Over 70% of our AB graduates pursue further education at the BE level or higher. Many pursue masters and doctoral degrees in engineering, while others study medicine, law or business, and consider their technical education to be excellent preparation.

The BE also prepares students for a variety of jobs in industry such as Google, Amazon, Boeing, Microsoft, Tesla, SpaceX, NASA, etc. The average starting salary for BE graduates is $76,000 and over 90% of students secure plans within four months of graduation.
Will you help me find a job?
Yes! We offer a dedicated engineering career services office providing support and guidance with finding jobs—both full-time and leave term internships.

https://engineering.dartmouth.edu/undergraduate