ENGINEERING AND APPLIED SCIENCE

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Courses in Engineering and Applied Science fall into three categories: those intended primarily for students majoring in one of the several engineering and applied science disciplines; those designed for students majoring in subjects other than engineering, the applied sciences, and the natural sciences; and those designed to meet common interests of students majoring in engineering, the applied sciences, or the natural sciences.

In the first category, the departments of Applied Physics, Biomedical Engineering, Chemical and Environmental Engineering, Computer Science, Electrical Engineering, and Mechanical Engineering and Materials Science offer courses intended primarily for majors in engineering and applied science disciplines. Courses in these departments may also be relevant for students with appropriate backgrounds who are majoring in Chemistry, Physics, Biology, Earth and Planetary Studies, and Mathematics. For information about majors in engineering and their related courses, see Applied Physics, Biomedical Engineering, Chemical Engineering, Computer Science, Electrical Engineering, Environmental Engineering, and Mechanical Engineering.

The School of Engineering and Applied Science is responsible for courses in the other two categories: technology for students majoring in subjects other than engineering, the applied sciences, and the natural sciences; and topics common to students majoring in engineering, the applied sciences, and the natural sciences. Courses for nonscience majors are intended for all students seeking a broad perspective on issues of scientific and technological import, and they introduce students who may be planning careers in law, business, or public service to concepts and methods of engineering and applied science. Courses for science and engineering majors include topics in applied mathematics and computation.

Programs in Engineering and Applied Science are offered by five different departments, with six subjects of instruction: Biomedical Engineering, Chemical Engineering, Computer Science, Electrical Engineering, Environmental Engineering, and Mechanical Engineering. There are also interdepartmental programs in Electrical Engineering and Computer Science, Computer Science and Economics, Computer Science and Mathematics, and Computer Science and Psychology. Currently, fifteen undergraduate degree options are available. First-year students interested in engineering or computer science are encouraged to learn more about the programs.

For all engineering and computer science programs, it is important to plan courses to ensure that necessary prerequisites have been completed in time for more advanced courses. In the first year, students usually take courses in mathematics and physics, particularly if they plan to major in Chemical, Biomedical, or Environmental Engineering. The specific choice of courses depends on preparation and the possible majors that may be contemplated.

All students considering a major in Engineering or Computer Science should contact one or more of the directors of undergraduate studies (DUSes) before making decisions about courses in the first year. Contact information can be found on the School of Engineering and Applied Science website.

In addition to courses for majors, the School of Engineering and Applied Science regularly offers several general engineering and computer science courses that do not assume advanced preparation in mathematics or science. Such courses are intended for students who wish to study science and technology from a broad perspective. See the individual program pages for more information.

View ENAS Courses