

Engineering at Wellesley College

Students can explore a wide range of possibilities in the field of engineering, either by taking a single course or a coordinated group of courses designed to prepare them for graduate study in an engineering discipline. These prospects are made possible by Wellesley's exchange programs with two excellent local institutions: Franklin W. Olin College of Engineering, a new pioneer in educating future engineers, and Massachusetts Institute of Technology (MIT), a world leader in engineering research and education.

Wellesley students majoring in physics, computer science, or chemistry, for example, can often go directly to graduate school in engineering after four years. However, it is highly recommended that they have at least some exposure to engineering during their undergraduate career. Wellesley's Introduction to Engineering Science, followed by other courses at Olin or MIT, can provide a solid basis for future study.

Wellesley's Introduction to Engineering Science

In this project-based course, EXTD 160, students learn about fundamental principles that apply to many fields of engineering, and they acquire skills and familiarity with modern engineering tools and techniques. Wellesley's new teaching laboratory/workshop supports a full range of hands-on activities. Students work with programming and design software, elements of robotics, a laser cutter, and a 3-D printer in developing and building projects. There is also an associated seminar series in which visiting engineers discuss their work and careers. Introduction to Engineering Science has a prerequisite of Physics 107 or permission of the instructor. This course is approved as a gateway course for all of the engineering certificates offered by Olin College.

Courses at Olin College

Olin College, which opened its doors in 2002, is an engineering institution whose 300 students and 36 faculty members are entirely devoted to innovative engineering education. Wellesley students can cross-register for individual courses, work on projects with Olin students, and also take one of the six prescribed series of courses that lead to a Certificate in Engineering Studies. The programs of study include: engineering design, materials engineering, bioengineering, electrical and computer engineering, mechanical engineering, and engineering systems. These certificates are essentially engineering minors that are approved by Olin.

Find more information about Olin cross-registration at: www.wellesley.edu/Registrar/regolin.html.
For details about the Certificate Program, please visit: crossreg.olin.edu/wellesley/certificate.php.

Courses at MIT

MIT is one of the world's foremost institutions for science and engineering. Wellesley students can cross-register for individual courses at MIT and can participate in UROP, the Undergraduate Research Opportunities Program. Students can also work with advisors from Wellesley and MIT to design a cluster of courses to complement a major at Wellesley and form the foundation for graduate study in an engineering discipline.

Read more about the MIT/Wellesley relationship at: www.wellesley.edu/Registrar/mitcross-reg.html
And more about UROP here: web.mit.edu/urop/basicinfo

Transportation to Olin and MIT

Wellesley College provides free transportation to both Olin and MIT during the week. Located in nearby Needham, Massachusetts, Olin is approximately two miles from Wellesley. A shuttle runs between the campuses every 30 minutes. The MIT Exchange Bus runs hourly between Cambridge and Wellesley, and the trip lasts approximately 40 minutes.

Dual-Degree Programs

Students who intend to go on to graduate school are usually best served by developing a four-year program combining a Wellesley major and courses at Olin or MIT and then directly going on to pursue an advanced degree in an engineering field. However, some students may want to consider a five- or six-year program, which will enable them to earn two bachelor's degrees: one in their Wellesley major and one in an engineering discipline. Three such programs are featured below.

Columbia University offers a "3-2 Combined Plan Program" in which students spend their first three years at Wellesley and their fourth and fifth years at Columbia's Fu Foundation School of Engineering and Applied Science. Columbia also offers a 4-2 program in which students spend two years at Columbia to get a bachelor's degree in engineering after graduating from Wellesley. This latter program might be appropriate for someone who comes to engineering later in her Wellesley career and who has not taken sufficient science or mathematics courses to qualify for a 3-2 program.

For more information about these programs, please visit:

www.studentaffairs.columbia.edu/admissions/engineering/combined/geninfo.php

The **Dartmouth College Dual Degree Program** offers a thoughtful alternative to the more typical "3-2" program. Wellesley students spend their third and fifth year at Dartmouth's Thayer School of Engineering and their first, second, and fourth year at Wellesley.

For details about this program, visit: engineering.dartmouth.edu/undergraduate/dual

The **MIT-Wellesley Double-Degree Program** enables Wellesley students who are accepted to MIT as transfer students to earn a B.A. degree from Wellesley and an S.B. degree from MIT over the course of five years. Double-Degree candidates must fulfill the requirements for a major at both institutions. Interested Wellesley students apply for transfer admission to MIT at the end of the sophomore year. This program can be appropriate for students who wish to major in very different fields (such as one who majored in English at Wellesley and Civil Engineering at MIT.) Acceptance cannot be guaranteed even for highly qualified students as transfer admission to MIT is extremely competitive.

Please contact Professors Ted Ducas or Robbie Berg for more information about engineering at Wellesley.

Professor Theodore W. Ducas
(781) 283-3047
tducas@wellesley.edu

Professor Robbie Berg
(781) 283-3110
rberg@wellesley.edu