

ENGINEERING

Department Website:

<https://www.haverford.edu/engineering>

While Haverford does not offer a formal engineering degree program, many of our graduates have pursued successful and interesting careers in various engineering disciplines. Our partnerships with the University of Pennsylvania and the California Institute of Technology (Caltech) offer robust—and unique—opportunities.

Accelerated Master's in Engineering Program With the University of Pennsylvania

Study for four years at Haverford, then one year (two semesters and a summer, or in some cases two semesters plus a part-time third semester) at Penn, and receive a Bachelor of Science from Haverford and a Master's in Engineering from Penn. Haverford is the first liberal arts college in the world to enter into such an agreement with an Ivy League engineering program.

During your four years at Haverford, you will take between zero and four undergraduate engineering courses (depending on your field of interest) through our course exchange agreements with Penn and Swarthmore. Typically, you will start taking these during your sophomore year, but it is essential to begin taking appropriate science and math courses at Haverford in the first semester of your first year. Please consult with the Haverford faculty contact for the Master's degree(s) that interest you most (see below).

You will formally apply to the accelerated Master's program in the spring of your sophomore year, or in the spring of your junior year. A GPA of 3.0 in all courses and of 3.0 in science and math courses is required to apply; a GPA of at least 3.3 (preferably 3.5) in science and math courses will increase the probability of admission. The admissions decision is based on your transcript and letters of recommendation from one or more Haverford faculty members. Once accepted, and after completing any prerequisite undergraduate engineering and science courses, you will take three graduate engineering courses at Penn while still enrolled at Haverford. (There is no additional financial charge for these courses.) During your four years at Haverford, you will also complete all graduation requirements, including the major. You graduate from Haverford at the normal time, along with your class.

The fifth year of the program is spent entirely at Penn. You will take seven additional graduate

courses to complete the requirements for the Master's degree. There is no financial aid available from Penn for the fifth year of the program, though you are eligible for federal student loans.

Interested students should consult their advisor and the College's advisor for the accelerated Master's program (Professor Walter Smith [wsmith@haverford.edu]) as early as possible.

3/2 Engineering Program with The California Institute of Technology

Haverford and CalTech have a joint program under which a student who is interested in engineering may, in the second semester of their junior year, apply for transfer to an engineering program at CalTech. If accepted into the program, then at the end of five years (three at Haverford, two at CalTech), the student will be awarded a Bachelor of Arts or Bachelor of Science degree by Haverford and a Bachelor of Engineering Degree by CalTech. For each engineering discipline, there is a required set of courses to be taken at Haverford during the first three years of the program. Interested students should consult their advisor and the College's advisor for the 3/2 Program (Professor Walter Smith [wsmith@haverford.edu]) about the proper course selection; this consultation should occur as early as possible. A cumulative grade point average of 3.5 is generally expected for this program.

Master's Degree after Study at Haverford

For many students interested in engineering, the best option is to spend the full four years at Haverford, taking two or three engineering courses through our course exchange agreements with Swarthmore and the University of Pennsylvania, then to apply for a Master's or Ph.D. program elsewhere.

The Master's takes 1.5-2 additional years to complete, while the Ph.D. takes 4-6 years. Students planning for this option should contact the Engineering Coordinator (Professor Walter Smith [wsmith@haverford.edu]) as early as possible during their time at Haverford.

For more information about these programs, see the websites linked from the Engineering web page.

Engineering Coordinator

Andrea Lommen

The John Farnum Professor; Professor of Physics and Astronomy