

Preparing to Study Engineering at Princeton

All admissions to Princeton University, including to the Bachelor of Science in Engineering degree program, are handled by the Princeton University Undergraduate Admission Office. Princeton does not prescribe specific admission requirements or high school program of study, although general guidelines can be found at <https://admission.princeton.edu/how-apply/academic-preparation>.

Nonetheless, for the study of engineering, prospective students should keep the following considerations in mind:

1. Study as much **math** as you possibly can in each of your four years of high school. Ideally, your math preparation will include calculus, but please do not neglect pre-calculus or algebra 2 since concepts from these subjects will return later in your engineering studies. If you have a choice between statistics and basic calculus in senior year, take calculus. If you exhaust the math courses at your high school, please consider taking further math at a local college or university during your senior year. It is important that you absorb math concepts and skills not just to score high on exams but also to apply them to problems you have not seen before. Learn to do math without the help of a calculator, since calculators are not used in introductory calculus courses at Princeton.
2. Take a college-preparatory **physics** course in your junior or senior year that uses at least algebra in its calculations. Prior to junior year, you probably will not have adequate math background for such a course. It does not have to be an AP course, but the more rigorous the course the better. The calculus-based physics courses taken by first-year engineering students at Princeton presume a **recent** high school foundation in physics. Ninth-grade general-science “physics” is not adequate preparation for college physics courses taken by engineering students. The importance of strong physics preparation cannot be overstressed.
3. Do not neglect the **humanities, literature, social sciences, arts, and languages**. These subjects are important parts of an engineering education. Look for opportunities to write essays and to speak in class. Princeton engineering graduates are distinguished by their ability to articulate their ideas well in written documents and in oral presentations. The only way to master these skills is to practice them.
4. If possible, learn more about **computers** than just how to start them up and move the mouse. Even minimal exposure to programming, in any language, that enables you to write a simple program will give you confidence in your introductory computing course. It does not have to be formal study, and the language and operating system do not matter, but any experience that makes computers less mysterious will be very useful as you learn how to use them in your engineering studies. Another good idea would be to obtain experience with a program like Microsoft Excel in which you compose formulas to analyze numerical data.

If you have any questions, please feel free to contact the SEAS Undergraduate Affairs Office at BSEprogram@princeton.edu.