



Electrical Engineering

Electrical Engineering, B.S.

Major Description

The Electrical Engineering curriculum, accredited by the Accreditation Board for Engineering and Technology, gives an excellent background for either graduate study or employment. The two main objectives of the program are to provide a deep and fundamental education in electrical engineering, as well as in basic sciences and mathematics, and to provide specialized education in one branch of electrical engineering so that students develop expertise in it.

Starting Your Electrical Engineering Degree

Lower-Division Major Requirements in Electrical Engineering

From UC's perspective, community college is where you begin working on the first two years of your bachelor's degree. This includes taking lower-division coursework specifically related to your field of study that may be applied toward graduation in your major.

Listed below are the lower-division requirements for **Electrical Engineering, B.S.** that may be satisfied with approved community college courses unless otherwise noted. To find out which of these requirements are shared by other UC campuses, see the UC Statewide Transfer Preparation Path in Electrical Engineering.

- General Chemistry (one semester or equivalent)
- Calculus (full sequence)
- Multivariable Calculus
- Linear Algebra
- Differential Equations
- Calculus-based Physics (full sequence)
- Circuits
- Computer Programming (C++ preferred; or C or Java)
- English Composition (two courses for admission to the major; may be applied toward GE requirements)

!!! IMPORTANT !!!
All of these requirements do not necessarily have to be completed **before** you transfer. See the next section of this path for what you must do to be competitive for admission.

FIND YOUR COURSES
Every course at your community college that can be used to meet any of the lower-division major requirements is listed at www.assist.org

Becoming Competitive for Admission to Electrical Engineering

Selection Requirements

Below are the lower-division requirements that this campus advises applicants to complete—and by when and with what GPA—to be competitive for admission to the major. It is important to note that meeting these requirements does not necessarily guarantee admission to the campus or major. Majors designated as “highly selective” receive many more qualified applicants than there are spaces available. The stronger your major preparation, the more competitive you are for these slots.

- A **highly selective** major. The most important selection criteria are completion of lower-division major-preparation coursework and academic performance.
- You **must** have a minimum overall transfer GPA of 3.2 with excellent grades in the required courses.
- You **must** complete major-preparation courses by the end of the spring term prior to fall enrollment.
- All courses **must** be taken for a letter grade.

Satisfying General Education in Electrical Engineering

General Education Requirements

While all UC campuses urge you to focus on your lower-division major requirements while in community college, it is important to remember that general education (GE), or “breadth,” requirements for your bachelor’s degree may also be met with approved community college courses. In fact, some majors require completion of lower-division GE coursework as part of your preparation prior to transfer. The good news is you may be able to double-count some of your lower-division major coursework for related GE requirements.

The Intersegmental General Education Transfer Curriculum (IGETC) is a series of courses at California community colleges that students may complete to satisfy GE requirements. Certain students, however, may not be well served by following this GE option. Specific information about satisfying GE requirements as an Electrical Engineering major is listed below.

- You are **strongly** advised to give completion of lower-division major-preparation requirements priority over completion of GE requirements prior to transfer. It is beneficial, however, for you to complete one course from each of the following areas: arts, humanities, social sciences and life sciences. While IGETC certification is not recognized, you may refer to the IGETC course list in making your course selections.

Related Majors

Preparation for the following major may be similar to the Electrical Engineering major described above (consult the campus catalog and www.assist.org).

- Materials Engineering, B.S.