



Arizona State University (Tempe campus)

Electrical Engineering (Electric Power and Energy Systems), BSE

Study details

Course type: Bachelor's degree

Degree: Electrical Engineering (Electric Power and Energy Systems), BSE ESEEEPBSE

Study mode: Full time

Duration: 48 Month

Cost of study

Cost : 35 430 USD

Reg. fee : 85 USD

Scholarship :

Insurance : 2 765 USD

Intake/s

Jan/May/Aug

Requirements

Academic requirements

First-year students must:

- Have a 3.00 grade point average (GPA) (a "B" or better where "A"=4.00) from a secondary school. Some ASU programs may have higher admission or English proficiency requirements and may consider a minimum ACT or SAT score.
- Must have three years of high school coursework. (If you are currently in high school, ASU needs to see 9–11 grade coursework. If you have completed high school, ASU needs to see 10–12 grade coursework.)
- Must have and present a completed high school diploma or certificate.

Conditional admission

ASU may offer conditional undergraduate admission to international applicants to an on-campus program who meet the academic (aptitude) requirements but who are not proficient in English. This offer of conditional admission will give you time to improve your English proficiency before you start classes at ASU. Your conditional admission offer is good for up to three semesters, during which time you must meet one of these requirements to begin your ASU experience.

Competency requirements

International students who completed high school outside the U.S. are required to meet the following competency requirements:

- Math: four years (algebra I, geometry, algebra II and one course requiring algebra II as a prerequisite).
- Laboratory science: three years total (one year each from any of the following areas are accepted: biology, chemistry, earth science, integrated sciences and physics).

Provide evidence of English language proficiency (TOEFL 61)

Additional requirements:

The admission standards for majors in the Ira A. Fulton Schools of Engineering, shown below, are higher than minimum university admission standards. International students must meet the same admission standards, with the possible additional requirement of a minimum English language proficiency test score. If the university requires an English proficiency test score from the applicant, then admission to engineering requires a minimum TOEFL iBT score of 79 (internet-based test, taken in a testing center), a minimum IELTS score of 6.5, a minimum PTE score of 58, a minimum Duolingo English score of 105, or a minimum Cambridge English exam score of 176.

Accommodation

Provided by partner agencies

Speciality

STEM-OPT for international students on F-1 visas

This program may be eligible for an Optional Practical Training extension for up to 24 months. This OPT work authorization period may help international students gain skills and experience in the U.S. Those interested in an OPT extension should review ASU degrees that qualify for the STEM-OPT extension at ASU's International Students and Scholars Center website.

The OPT extension only applies to students on an F-1 visa and does not apply to students completing a degree through ASU Online.

Transfer admission requirements:

Transfer students with fewer than 24 transferable college credit hours:

1. minimum transfer GPA of 3.00 for fewer than 24 transfer hours, **and**
2. no high school math or science competency deficiencies, **and**
3. minimum 1210 SAT combined evidence-based reading and writing plus math score (or 1140 if taken prior to March 5, 2016) or minimum 24 ACT combined score, **or** a minimum high school cumulative GPA of 3.00 in ASU competency courses, **or** class ranking in top 25% of high school class

Transfer students with 24 or more transferable college credit hours must meet EITHER the primary OR the secondary criteria (not both):

Primary criteria

1. minimum transfer GPA of 3.00 for 24 or more transfer hours, **and**

2. no high school math or science competency deficiencies (if ASU Admission Services requires submission of a high school transcript)

Secondary criteria

1. minimum transfer GPA of 2.50 for 24 or more transfer hours, **and**
2. minimum GPA of 2.75 in all critical courses for Terms 1 and 2 (MAT 265 Calculus for Engineers I, MAT 266 Calculus for Engineers II, PHY 121 University Physics I: Mechanics, and PHY 122 University Physics Laboratory I)

Available online

Additional information

Program description

The electric power and energy systems concentration in the BSE program in electrical engineering prepares students for positions after graduation in industries dealing with the generation, transmission and utilization of electric power. Generation includes conventional power generation (fossil fuel and nuclear) and alternative energy systems, including solar, wind and fuel cells.

Students in this program complete the foundation courses in math, science and engineering and then are required to take the pathway course in energy systems and power electronics and complete nine of the 15 technical elective credit hours with electrical power and energy systems courses. The senior design capstone project focuses on the area of electric power and energy systems.

Accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>, under the General Criteria and the Electrical and Electronics Engineering Program Criteria.

Concurrent program options

Students pursuing concurrent degrees (also known as a “double major”) earn two distinct degrees and receive two diplomas. Working with their academic advisors, students can create their own concurrent degree combination. Some combinations are not possible due to high levels of overlap in curriculum.

Accelerated program options

This program allows students to obtain both a bachelor's and master's degree in as little as five years. It is offered as an accelerated bachelor's plus master's degree with:

- Astrophysics and Astronomy, MS
- Electrical Engineering, MS
- Electrical Engineering, MSE
- Exploration Systems Design (Instrumentation), MS
- Exploration Systems Design (Sensor Networks), MS
- Exploration Systems Design (Systems Engineering), MS
- Exploration Systems Design, MS
- Robotics and Autonomous Systems (Electrical Engineering), MS

Acceptance to the graduate program requires a separate application. Students typically receive approval to pursue the accelerated master's during the junior year of their bachelor's degree program.

Global opportunities

Global experience

Students gain valuable experience when studying abroad, experience that enhances their resumes. With over 300 programs available, study abroad enables students to tailor their experience to their unique interests and skill sets. Students in electrical engineering are able to gain hands-on experience in a variety of international locations. In a competitive field, students stand out with the heightened cultural competency as well as leadership and critical thinking skills they achieved when studying abroad. More information on available programs can be found on the Global Education website.

Career opportunities

Career opportunities for graduates with a concentration in electric power and energy systems include:

- engineering consulting firms
- entrepreneurial startups
- power equipment manufacturers
- research and design organizations
- state, federal and municipal agencies
- utility companies

This concentration also prepares students to pursue graduate degrees in the areas of:

- power generation
- power systems
- power transmission and distribution
- renewable and sustainable energy sources

The program also prepares graduates for continued learning experiences, either in a formal graduate program or in continuing education applications.