Arizona State University (Polytechnic Campus)

Engineering (Robotics), BSE

Study details

Course type: Bachelor's degree
Degree: Engineering (Robotics), BSE TSEGRRBSE
Study mode: Full time
Duration: 48 Month

Cost of study

Cost : 35 430 USD
Reg. fee : 85 USD
Scolarship :
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)

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.

Additional information

Program description

The BSE program in engineering prepares graduates to collaborate across disciplines to design and build solutions to real-world problems.

Bachelor of Science in Engineering students apply fundamental engineering knowledge and design thinking to real projects every semester. Students in the robotics concentration of the program build a broad engineering foundation to which they add the skills and knowledge they will need to contribute robotics subject matter expertise on transdisciplinary engineering teams. This expertise includes electromechanical systems, sensor and actuator integration, embedded digital systems application, and design and analysis of dynamic systems. The robotics curriculum also provides significant hands-on experience designing and implementing robotics systems to meet the needs of users.

The program enables students to develop sophisticated technical skills in tandem with the professional skills of communication, teamwork, collaboration, self-motivation and adaptability, and the program's emphasis on open-ended design and project-based learning supports the development of entrepreneurial skills and attitudes.

Accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Engineering, General Engineering, Engineering Physics, and Engineering Science Program Criteria.

This major is eligible for the Western Undergraduate Exchange program at the following location: Polytechnic campus. Students from Western states who select this major and campus may be eligible for reduced nonresident tuition at a rate of 150% of Arizona resident tuition plus all applicable fees.

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:

- Clean Energy Systems, MS
- Engineering, MS
- Global Management, MGM
- Human Systems Engineering (Intelligent Systems), MS
- Manufacturing Engineering, MS
- Robotics and Autonomous Systems (Systems Engineering), MS
- Secondary Education (Teacher Certification), MEd
- Technology (Management of Technology), MSTech

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

Study abroad enables students to gain valuable, resume-building experience. Participation in a Global Education program provides students with the heightened cultural competency, and leadership and critical thinking skills that will help them stand out in a competitive industry.

Whether in a foreign country, in the U.S. or online, students build communication skills, are challenged to adapt and persevere, are exposed to research and internships across the world, and increase their professional network.

Engineers on transdisciplinary teams collaborate to design, manufacture and deliver innovative technological products and services.

Robotics plays an increasingly important role in many different industries, including manufacturing, automotive, defense systems, biomedical devices and aerospace.

Graduates from this program have a broad base of technical knowledge in the design and implementation of robotic electromechanical systems. In addition, they have the operational and communication skills that make them invaluable members of multidisciplinary engineering teams and well-suited for employment across the whole spectrum of applications. They are prepared to work in large corporations, government agencies and small businesses, and to go on to graduate school to pursue advanced degrees. Some graduates start companies of their own.