



Arizona State University (Tempe campus)

Earth and Space Exploration (Exploration Systems Design), BS

Study details

Course type: Bachelor's degree

Degree: Earth and Space Exploration (Exploration Systems Design), BS LASESESDBS

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)

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 BS program in Earth and space exploration with a concentration in exploration systems design offers students a fundamental curriculum in geology, physics and astrophysics while providing tools that enable them to design and build hardware and software to explore Earth and the universe beyond.

The program has a rigorous and quantitative grounding in the fundamentals of physics, mathematics and chemistry. Coursework focuses on conceiving the requirements needed for a mission or project destined for space or extreme environments on Earth. All students are expected to complete a senior project that takes a desired scientific measurement and realizes the technological solution to achieve the observation.

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, MSE
- Exploration Systems Design (Instrumentation), MS
- Exploration Systems Design (Sensor Networks), MS

- Exploration Systems Design (Systems Engineering), MS
- Exploration Systems Design, 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

Space exploration is an international endeavor, and an international experience provides students opportunities for cross-cultural engagement and improvement of language and communication skills. Global Education allows students to take relevant classes while living in another country. Each of the more than 300 Global Education program options provide an opportunity for students to develop a valuable skill set that can give them an advantage in their career and personal enrichment. Whether in a foreign country, in the U.S. or online, Global Education programs encourage students to build communication skills, challenge them to adapt and persevere, expose them to differences across the world and increase their ability to work with diverse groups of people.

Career opportunities

Graduates possess the skills required for a career in systems engineering, space systems engineering, scientific instrument engineering and engineering-focused careers in astronomy, geoscience and planetary science, opening up diverse opportunities for employment in industry, government, education and other organizations. They also are prepared to pursue graduate school in astrophysics, physics and engineering, or to perform laboratory research or data-intensive analyses that enable scientific progress or inform public policy.

Career opportunities include:

- astronomer
- computer software quality engineer
- computer systems architect
- engineering or technical services manager
- planetary scientist
- research scientist or instrumentation specialist
- science policy consultant
- science teacher (K-12)
- space systems engineer
- systems engineer

Career settings include:

- aerospace industry organizations
- educational institutions
- federal, state and local government agencies
- manufacturing centers
- NASA centers
- NSF facilities
- museums or planetariums

- national laboratories
- observatories
- space industry organizations