Astronomical and Planetary Sciences, BS

LAASTPLSBS

Explore humanity's place in the universe, from a near-Earth orbit to the edge of the observable universe. In the process of your scientific inquiry, you develop critical thinking, problem-solving and communication skills.

Program description

The online BS program in astronomical and planetary sciences provides broad training in the scientific foundations required to understand and communicate the fundamentals of space exploration and ongoing advances in the field.

The degree program includes groundwork in mathematics and physical sciences, topical courses focused on diverse fields within astronomy and planetary science, and exposure to the engineering and computational tools and techniques used to carry out research.

In addition to the guidelines in the Concurrent Program Options section below, students interested in pursuing concurrent or second baccalaureate degrees in The College of Liberal Arts and Sciences are advised to visit The College's website for more information and requirements.

At a glance

- **College/School:** The College of Liberal Arts and Sciences
- **Location:** Online, ASU Local

- **Second language requirement:** No
- **First required math course:** MAT 210 - Brief Calculus or higher
- **Math intensity:** Moderate 

Required courses (Major Map)

2024 - 2025 Major Map (online)
Major Map (Archives)

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.

Admission requirements

General university admission requirements:
All students are required to meet general university admission requirements.
First-year | Transfer | International | Readmission

Tuition information

When it comes to paying for higher education, everyone's situation is different. Students can learn about ASU tuition and financial aid options to find out which will work best for them.

Change of Major Requirements

A current ASU student has no additional requirements for changing majors.

Students should visit the Change of Major form for information about how to change a major to this program.

Attend online

ASU Online

ASU offers this program in an online format with multiple enrollment sessions throughout the year. Applicants may view the program's ASU Online page for program descriptions and to request more information.

ASU Local

It is now possible to earn an ASU degree with ASU Local, an integrated college experience in which students take advantage of in-person success coaching and programming experiences on site while completing one of 130+ undergraduate online degree programs, all of which come with online faculty interaction and tutoring support.

Transfer options

ASU is committed to helping students thrive by offering tools that allow personalization of the transfer path to ASU. Students may use MyPath2ASU® to outline a list of recommended courses to take prior to transfer.

ASU has transfer partnerships in Arizona and across the country to create a simplified transfer experience for students. These pathway programs include exclusive benefits, tools and resources, and they help students save time and money in their college journey.

Global opportunities

Global experience
With more than 300 Global Education program opportunities available, astronomical and planetary sciences students are able to tailor their experience to their specific interests and skill sets. Whether in a foreign country, in the U.S. or online, students build communication skills, learn to adapt and persevere, and are exposed to research and internships across the world, increasing their professional network.

Career opportunities

Graduates pursue careers in fields that value the quantitative and technical skills taught as part of an astronomy education. These include K-12 STEM teaching positions, science and technology journalism and writing careers, technical careers involving statistical data analysis or computer programming, or technical positions supporting space and research industry and policy.

Career opportunities include:

- analytical lab technician
- astronomer
- data analyst
- instrumentation specialist
- museum director
- planetary scientist
- research scientist
- science teacher
- science writer
- telescope operator

Career settings include:

- aerospace industry organizations
- educational institutions
- federal, state and local government agencies
- manufacturing centers

- museums or planetariums
- NASA facilities
- national laboratories
- NSF facilities
- observatories
- space industry organizations

For more information, students can visit thecareer opportunities page on the School of Earth and Space Exploration website.

Example job titles and salaries listed below are not necessarily entry level, and students should take into consideration how years of experience and geographical location may affect pay scales. Some jobs also may require advanced degrees, certifications or state-specific licensure.

Career	*Growth	*Median salary
Aerospace Engineer Technician	8.3%	$74,410
Astronomer	4.6%	$128,330
Computer Programmer		$97,800
Data Analyst		$48,880
Elementary Teacher	0.7%	$61,690
High School Teacher	1.0%	$62,360
Middle School Teacher	0.8%	$61,810
Production Assistant	4.3%	$65,000
Technical Writer	6.9%	$79,960
Web Developer	17.0%	$78,580

* Data obtained from the Occupational Information Network (O*NET) under sponsorship of the U.S. Department of Labor/Employment and Training Administration (USDOL/ETA).

Bright Outlook

Contact information

School of Earth and Space Exploration | ISTB4 795
SESE-online@asu.edu | 480-965-5081