Astrophysics, Minor

If you want to learn about Earth's solar system as well as our galaxy and the universe, this minor is ideal for you. Join students and faculty in astrophysics who are building space-flight hardware, making astronomical observations, discovering new planets, exploring cosmology and engineering new instruments for telescopes and satellites.

Description

The astrophysics minor is designed for students interested in developing a background in the theoretical modeling and observational techniques of galactic and stellar astronomy, extragalactic astronomy and cosmology.

Students completing the minor are able to think critically about scientific problems by reducing complex problems to their most important attributes and are able to design experiments, observations and theoretical models that address those attributes.

Students pursuing an astrophysics minor are expected to have a strong background in physics and mathematics.

At a Glance

- **College/School:** [The College of Liberal Arts and Sciences](#)
- **Location:** [Tempe campus](#)

Program Requirements

[Minor Map (Archives)](#)
[2021 - 2022 Minor Map](#)
The minor in astrophysics consists of a minimum of 20 credit hours. At least 12 credit hours must be upper-division. Students complete 12 credit hours of required coursework and select one of three eight-credit hour options to complete the minor. All courses must be completed with a grade of "C" (2.00 on a 4.00 scale) or higher.

**Required Courses -- 12 credit hours**

- **AST 321: Introduction to Planetary and Stellar Astrophysics** (3)
- **AST 322: Introduction to Galactic and Extragalactic Astrophysics** (3)
- **AST 421: Astrophysics I** (3)
- **AST 422: Astrophysics II** (3)

**Electives Options -- 8 credit hours**

Choose one of the following options for the additional eight credit hours. (8)

**Option 1**

- **SES 121: Earth, Solar System and Universe (SQ)** (3)
- **SES 123: Earth, Solar System and Universe Laboratory (SQ)** (1)
- **SES 126: Exploration of the Universe** (3)
- **SES 128: Exploration of the Universe Lab** (1)

**Option 2**

- **AST 111: Introduction to Solar Systems Astronomy (SQ)** (4)
- **AST 112: Introduction to Stars, Galaxies, and Cosmology (SQ)** (4)

**Option 3**

- **AST OR MAT OR PHY OR SES Upper Division Elective** (8)

In order to satisfy SQ natural science requirements, both a lecture and its corresponding laboratory section must be completed.

Depending on a student's undergraduate program of study, prerequisite courses may be needed in order to complete the requirements of this minor.

**Enrollment Requirements**

**GPA Requirement:** None

**Incompatible Majors:** BS in earth and space exploration (astrophysics); other BS in earth and space exploration concentrations are only compatible with the astrophysics minor as long as option 2 or 3 of the minor are pursued

**Other Enrollment Requirements:** None
Current ASU undergraduate students may pursue a minor and have it recognized on their ASU transcript at graduation. Students interested in pursuing a minor should consult their academic advisor to declare the minor and to ensure that an appropriate set of courses is taken. Minor requirements appear on the degree audit once the minor is added. Certain major and minor combinations may be deemed inappropriate by the college or department of either the major program or minor. Courses taken for the minor may not count toward both the major and the minor. Students should contact their academic advisor for more information.

**Career Opportunities**

A minor can help students enhance the marketable skills they acquire in their major program and help them develop new skills apart from it, though most career areas do require more training than a minor alone can provide.

The astrophysics minor supplements other technical degrees with advanced problem-solving techniques and skills used in modern astrophysics research which are applicable to a wide variety of engineering and science careers.

**Contact Information**

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