

# ASTRONOMY

The astronomy program has classes that cover everything from our nearest celestial neighbors to the edge of the observable universe. Astronomy courses explore the ways planets, stars, galaxies, and the entire universe evolve and the science of looking for life beyond our Earth. Astronomical questions range from the deeply philosophical (what is the fate of the universe) to the immediately practical (how are humans impacting the Earth's climate). Courses in astronomy satisfy general education requirements for the associate degree and lower division transfer. There is one astronomy course in the honors program, ASTR 115H Planetary Astronomy - Honors.

## Faculty

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## Contact Information

### Division

Mathematics, Sciences and Business

### Administrative Secretary

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### Division Office

PS 114

### Division Phone Number

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### Discipline Website

<https://www.citruscollege.edu/academics/programs/astro> (<https://www.citruscollege.edu/academics/programs/astro/>)

## Learning Outcomes

This discipline prepares students to do the following:

- Describe astronomical events and process to peers.
- Estimate and/or calculate the characteristics of astronomical objects, and understand the meaning of these calculations.
- Apply an understanding of relevant astronomical process as well as processes from related sciences (e.g. physics, geology, chemistry) to astronomical questions.
- Understand the size and scale of the universe.

## Courses

### ASTR 115

#### Planetary Astronomy

**3 Units (AA/AS; Citrus B2; CSU; UC; IGETC 5A; CSUGE B1)**

**54 lecture hours**

**Equivalent to: ASTR 115H, ESCI 115, ESCI 115H**

**Grade Mode: Pass/No Pass, Standard Letter**

*Prerequisite(s): ENGL 101 or ENGL 101E or ENGL 101H or eligible for ENGL 101 without support.*

*Strongly recommended: Elementary algebra or higher or direct placement based on multiple measures.*

The astronomy of the solar system including the history of astronomy, the physics of motion, energy, and light, and the processes that determine the formation and evolution of planets, moons, and other bodies in our solar system and others.

### ASTR 115H

#### Planetary Astronomy - Honors

**3 Units (AA/AS; Citrus B2; CSU; UC; IGETC 5A; CSUGE B1)**

**54 lecture hours**

**Equivalent to: ASTR 115, ESCI 115, ESCI 115H**

**Grade Mode: Standard Letter**

*Prerequisite(s): ENGL 101 or ENGL 101E or ENGL 101H or eligible for ENGL 101 without support; student must be eligible for the Citrus College Honors Program or obtain a recommendation from an Honors instructor. Strongly recommended: Elementary algebra or higher or direct placement based on multiple measures.*

The astronomy of the solar system including the history of astronomy, the physics of motion, energy, and light, and the processes that determine the formation and evolution of planets, moons, and other bodies in our solar system and others. Students are expected to work and participate at an honors level which includes strong critical thinking skills, thorough analysis of astronomical readings, presentation and leadership skills demonstrated through class participation/presentation.

### ASTR 116

#### Stellar Astronomy

**4 Units (AA/AS; Citrus B2; Citrus B3; CSU; UC; IGETC 5A; IGETC 5C; CSUGE B1; CSUGE B3)**

**54 lecture hours, 54 lab hours**

**Equivalent to: ESCI 116**

**Grade Mode: Pass/No Pass, Standard Letter**

*Strongly recommended: ENGL 101.*

The fundamental areas of stellar astronomy including the structure, classification and evolution of stars, galaxies and the universe, interstellar matter, and the theories of Newton and Einstein. Laboratory exercises include: energy and forces, light, optics, telescopes, stars and their classification, and galaxies.

### ASTR 117

#### Life In The Universe

**3 Units (AA/AS; Citrus B2; CSU; UC; IGETC 5A; CSUGE B1)**

**54 lecture hours**

**Equivalent to: ESCI 117**

**Grade Mode: Standard Letter**

*Strongly recommended: ENGL 101.*

The origin and evolution of life on Earth, the processes and conditions relevant to life elsewhere in the universe, and the ongoing search for extraterrestrial life.