

# 94 Astronomy

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## Definition

Astronomy is perhaps the oldest science that investigates the fundamental physical and chemical laws that govern our solar system, universe and all of nature.

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## Staff

To access faculty and staff, dial (661) 722-6300, then the 4-digit extension.

### Program Advisement:

Dr. Leslie Uhazy, Dean ext. 6417

### Administrative Assistant:

Wendy Cios ext. 6415

### Faculty:

Richard Balogh ext. 6428

Dr. Mark McGovern ext. 6006

### Adjunct Faculty:

To access adjunct faculty voice mail, dial (661) 722-6300, then the 4-digit number.

V.M.

Alexander Webster 2625

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## Program Description

The astronomy courses are designed to meet the general education and major transfer requirements for the physical sciences.

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## Distinctive Features

Traditional teaching may be supplemented with computer and Internet-based instruction. Laboratory activities provide “hands-on” experimentation and discovery into the natural, physical and chemical characteristics of the earth and our universe. Computer-based data acquisition and analysis may assist in some lab instruction.

## Career Options

Astrobiology

Astronomer

Astrophysicist

(These careers require education beyond the two-year college level.)

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## Certificate Program

Certificate not applicable.

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## Associate Degree

Associate degree not available.

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## Transfer

Students planning to continue studies at a four-year college or university after AVC should visit the Transfer Resource Center and consult with a counselor as soon as possible. Additional information on official transfer articulation agreements from AVC to many CSU/UC campuses can be found at the following Web site: [www.assist.org](http://www.assist.org)

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## Prerequisite Completion

If a course is listed as a prerequisite for another course, that prerequisite course must be completed with a satisfactory grade in order to enroll in the next course. According to Title 5, Section 55200(d), a satisfactory grade is a grade of “A,” “B,” “C” or “P”. Classes in which the Pass/No Pass option is available are indicated with an asterisk (\*) before the course title. See “Pass/No Pass Option” in the catalog for full explanation.

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## Astronomy Courses

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### ASTR 101 \*ASTRONOMY

3 units

3 hours weekly

**Prerequisite:** Completion of MATH 102.

**Advisory:** Eligibility for College Level Reading and ENGL 101.

This course is designed as an introduction into the study of planetary, stellar, galactic and cosmological systems. Emphasis is placed on astronomical observations and the use of physical laws and principles to investigate the properties and dynamics of these systems. Topics include understanding celestial motion as a function of the motion of the Earth and the Moon, the development of modern astronomy, telescopes and imaging technology, the properties of light and atoms, the formation of spectra, stellar structure and evolution, galactic structure and evolution, cosmology, comparative planetology, and search for extraterrestrial life. (CSU, UC, AVC)

### ASTR 101L \*ASTRONOMY LABORATORY

1 unit

3 hours weekly

**Prerequisite:** Completion of ASTR 101 or concurrent enrollment. Completion of MATH 102.

**Advisory:** Eligibility for College Level Reading and ENGL 101.

Laboratory applications of principles discussed in ASTR 101. Classroom activities and topics include the use of star charts, cause of the seasons, telescope observations of the Moon, planets, and stars; the laws of optics as related to telescopes, how light is analyzed to deduce the physical properties of stars and galaxies, Kepler’s laws of planetary motion, constructing Hertzsprung-Russell diagrams to organize stellar data, cosmic distances, and the Hubble Law as it relates to the age and size of the Universe. (CSU, UC, AVC)