

Astronomy Courses

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.

Staff

Please dial (661) 722-6300, then the 4 digit extension.

Division:

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Denilson Freitas, Lab Technician	x.6704

Faculty:

Dr. Mark McGovern	x.6006
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Program Description

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

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	Astrophysicist
Astronomer	
(Careers may require education beyond the two-year college level.)	

Certificate Program

Certificate not applicable.

Associate Degree

An associate degree with a major in Astronomy is not available. Astronomy courses can be included in the 18 units necessary for an associate degree with a major in Liberal Arts and Sciences. (See Graduation/Associate Degree Requirements.)

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 www.assist.org

Prerequisite Completion

All prerequisite courses 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.

ASTR 101 *ASTRONOMY

3 units

3 hours weekly

Advisory: Completion of ENGL 101 or placement by multiple measures.

Prerequisite: Completion of MATH 102.

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

Advisory: Completion of ENGL 101 or placement by multiple measures.

Prerequisite: Completion of MATH 102 and Completion of or concurrent enrollment in ASTR 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)