

Astronomy (ASTR)

ASTR 310 The Solar System 3 Units

Prerequisite: None.

Advisory: MATH 34 with a grade of "C" or better

General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A

Course Transferable to UC/CSU

Hours: 54 hours LEC

This is a descriptive course treating the nature and evolution of the solar system. Topics will include the origins and characteristics of the planets, their satellites, planetary ring systems, asteroids, comets, meteorites, and the sun. Emphasis will be placed on how astronomers gain and refine their knowledge of the Universe and interpret the latest results of planetary exploration. Students enrolled in this course will have the opportunity to attend astronomy related off-campus activities, such as star parties.

ASTR 320 Stars, Galaxies, and Cosmology 3 Units

Prerequisite: None.

Advisory: MATH 34 with a grade of "C" or better

General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A

Course Transferable to UC/CSU

Hours: 54 hours LEC

This is a descriptive course treating the nature and evolution of stars, galaxies, and the astronomical theories of the origin and evolution of the universe. Emphasis will be placed on how astronomers gain and refine their knowledge of the universe and interpret the latest results of space exploration. Students enrolled in this course will have the opportunity to attend astronomy related off-campus activities, such as star parties.

ASTR 330 Introduction to Astrobiology 3 Units

Prerequisite: None.

Advisory: MATH 34 with a grade of "C" or better.

General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A

Course Transferable to UC/CSU

Hours: 54 hours LEC

Students in this course will investigate the scientific search for life beyond the Earth. Students will discover the origin and evolution of stars, planets, and life on Earth, also estimating the likelihood of life existing elsewhere in the universe. Students will also study past, present, and planned attempts to communicate with possible alien civilizations in our galaxy.

ASTR 400 Astronomy Laboratory 1 Unit

Prerequisite: None.

Corequisite: ASTR 310 or ASTR 320

Advisory: MATH 34 with a grade of "C" or better

General Education: AA/AS Area IV; CSU Area B3; IGETC Area 5A

Course Transferable to UC/CSU

Hours: 54 hours LAB

This course covers astronomical observation with the eye, telescopes, astronomical quality digital cameras, and both computer-driven and hand-held spectrometers. The analysis and interpretation of astronomical data is emphasized, usually with student-collected data. Students enrolled in this class will have the opportunity to attend astronomy related off-campus activities, such as dark sky star parties.

ASTR 435 Astronomy Frontiers 3 Units

Prerequisite: ASTR 310 or 320 with a grade of "C" or better

Advisory: MATH 34 with a grade of "C" or better

Course Transferable to UC/CSU

Hours: 54 hours LEC

This is a continuation course for students of ASTR 310 and/or ASTR 320 who want to explore the cutting edge of astronomical research. The topics covered will be based on the latest astronomical discoveries and will include such things as media coverage of science, possible missing planets in our Solar System, exoplanets, habitable zones and their connection to exoplanets, the lives of stars including black holes, groupings of stars such as open clusters and co-moving groups, exotic matter, the nature of galaxies, cosmology and its connection to the String Model, dark energy, the search for extraterrestrial life, future threats such as meteoroid impacts, climate change, and futures less dark. Emphasis will be placed on how astronomers use science to understand the Universe and the provisional nature of science.

ASTR 494 Topics in Astronomy .5-4 Units

Prerequisite: None.

Course Transferable to UC/CSU

Hours: 72 hours LEC

This course is designed to enable both science and non-science students to learn about recent developments in astronomy. Selected topics would be those not already a part of current course offerings. UC transfer credit will be awarded only after the course has been evaluated by the enrolling UC campus. The units completed for this course cannot be counted towards the minimum 60 units required for admissions.

ASTR 495 Independent Studies in Astronomy 1-3 Units

Prerequisite: None.

Course Transferable to UC/CSU

Hours: 162 hours LAB

This is an Independent Studies course that involves an individual student or small group of students in study, research, or activities beyond the scope of regular offered courses, pursuant to an agreement between the college, faculty member, and student(s). UC transfer credit will be awarded only after the course has been evaluated by the enrolling UC campus. The units completed for this course cannot be counted towards the minimum 60 units required for admissions.

ASTR 499 Experimental Offering in Astronomy .5-4 Units

Prerequisite: None

Course Transferable to UC/CSU

Hours: 72 hours LEC

See Experimental Offerings. UC transfer credit will be awarded only after the course has been evaluated by the enrolling UC campus. The units completed for this course cannot be counted towards the minimum 60 units required for admissions.