

2023-2024 Catalog

Astronomy

Overview

Courses only.

Dean

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Astronomy (ASTR) Courses

ASTR 310 The Solar System

Units:	3
Hours:	54 hours LEC
Prerequisite:	None.
Advisory:	Pre-Algebra or equivalent
Transferable:	CSU; UC
General Education:	AA/AS Area IV; CSU Area B1; IGETC Area 5A
Catalog Date:	January 1, 2024

This is a descriptive course covering the nature and evolution of the Solar System including exoplanets of stars beyond the Sun. Topics include the origins and characteristics of different types of planets, satellites, ring systems, asteroids, comets, and other debris. The Sun's role within the Solar System is discussed. Emphasis will be placed on how astronomers obtain and refine their knowledge of planets, and students will interpret the latest planetary discoveries in that context. Students enrolled in this course will have the opportunity to attend astronomy activities, such as the Open Observatory and dark sky events.

ASTR 320 Stars, Galaxies, and Cosmology

Units:	3
Hours:	54 hours LEC
Prerequisite:	None.
Advisory:	Pre-Algebra or equivalent
Transferable:	CSU; UC
General Education:	AA/AS Area IV; CSU Area B1; IGETC Area 5A
Catalog Date:	January 1, 2024

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 students will interpret the latest results of related astronomy research. Students enrolled in this course will have the opportunity to attend astronomy related activities, such as the Open Observatory or dark sky events.

ASTR 330 Introduction to Astrobiology

Units:	3
Hours:	54 hours LEC
Prerequisite:	None.
Advisory:	MATH 34 with a grade of "C" or better.
Transferable:	CSU; UC
General Education:	AA/AS Area IV; CSU Area B1; IGETC Area 5A
Catalog Date:	January 1, 2024

Students in this course will investigate the scientific search for life beyond Earth. Students will discover the connections between stars, planets, and life on Earth - or elsewhere, the nature of habitability, and quantifying the likelihood of life existing elsewhere in the Galaxy. Students will also study past, present, and future attempts to discover possible alien civilizations in our Galaxy.

ASTR 400 Astronomy Laboratory

Units:	1
Hours:	54 hours LAB
Prerequisite:	None.
Corequisite:	ASTR 310 or ASTR 320
Advisory:	MATH 34 with a grade of "C" or better
Transferable:	CSU; UC
General Education:	AA/AS Area IV; CSU Area B3; IGETC Area 5A
Catalog Date:	January 1, 2024

This course covers astronomical observation with the eye, telescopes, and 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 activities, such as the Open Observatory and dark sky events.

ASTR 435 Astronomy Frontiers

Units:	3
Hours:	54 hours LEC
Prerequisite:	ASTR 310 or 320 with a grade of "C" or better
Advisory:	MATH 34 with a grade of "C" or better
Transferable:	CSU; UC
Catalog Date:	January 1, 2024

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 life, the lives of stars including black holes, groupings of stars such as open clusters and co-moving groups, exotic matter, dark energy, the nature of galaxies, cosmology and its connection to the String Model, the search for extraterrestrial life and possible extinction threats to humanity such as meteoroid impacts, climate change, and futures less dark. Emphasis will be placed on how astronomers use science to understand the Universe as well as the provisional nature of science.

ASTR 494 Topics in Astronomy

Units:	0.5 - 4
Hours:	9 - 72 hours LEC
Prerequisite:	None.
Transferable:	CSU
Catalog Date:	January 1, 2024

This course is designed for any student wanting to learn about recent developments in astronomy. Selected topics are subject to change and must be topics 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

Units:	1 - 3
Hours:	54 - 162 hours LAB
Prerequisite:	None.
Transferable:	CSU
Catalog Date:	January 1, 2024

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 UC admission.

ASTR 499 Experimental Offering in Astronomy

Units:	0.5 - 4
Prerequisite:	None.
Transferable:	CSU
Catalog Date:	January 1, 2024

This is the experimental courses description.