

ASTRONOMY (ASTR)

See Course Description Symbols and Terms (<https://catalog.csuchico.edu/academic-standards-policies/course-description-symbols-terms/>) for an explanation of course description terminology and symbols, the course numbering system, and course credit units.

ASTR 100 Introduction to Astronomy: Survey of the Cosmos **4 Units GE**

Typically Offered: Fall and spring

This course provides an overview of modern physical theory, emphasizing the approach of science in understanding our place in the universe. The student discovers how simple, fundamental physical principles enable us to understand key features in diverse physical systems: from the radiometric dating of early hominid ancestors to the measurement of the expansion rate of the Universe. The course emphasizes our current understanding of astronomy, solar system formation, stellar evolution, and cosmic evolution. This in turn leads us to investigate the physical conditions salient to life on Earth, and ways in which these conditions are 'rare'. 2 hours activity, 3 hours discussion. (007392)

General Education: Laboratory (5C); Physical Science (5A)

Grade Basis: Graded

Repeatability: You may take this course for a maximum of 4 units

Course Attributes: Lower Division

ASTR 361 Astronomy - Stars and Telescopes **3 Units**

Prerequisite: PHYS 202A and PHYS 202B; or PHYS 204A and PHYS 204C.

Typically Offered: Fall and spring

Fundamentals of modern astronomy including the Sun; stellar structure; evolution of stars from formation to stellar remnants; white dwarfs, neutron stars, pulsars, and black holes; novae and supernovae; modern telescopes from radio to gamma rays; hands-on experience with optical observations; analysis and interpretation of stellar data. 3 hours lecture. (022417)

Grade Basis: Graded

Repeatability: You may take this course for a maximum of 3 units

Course Attributes: Upper Division

ASTR 365 Astronomy - Galaxies and Cosmology **3 Units**

Prerequisite: ASTR 361.

Typically Offered: Fall and spring

Current theoretical and observational understanding of galaxies, including the Milky Way and cosmology. Galaxy formation, structure and evolution are covered in the context of our wider cosmological understanding of the universe as a whole. Observational and theoretical underpinnings for our current model of cosmology, the Hot Big Bang, as well as the effects of dark matter and dark energy, are discussed in detail. 3 hours lecture. (022418)

Grade Basis: Graded

Repeatability: You may take this course for a maximum of 3 units

Course Attributes: Upper Division