ASTRONOMY (ASTR)

ASTR-105
Practice in Observational Astronomy **1 UNITS**
0.5 hours lecture, 1.5 hours laboratory
A lecture/field course designed to enhance the student's appreciation of the night sky. Topics include optics and telescopes, constellation study, and interpretation of astronomical phenomena observable with the unaided eyes, binoculars, and telescopes. Evening field trips will be scheduled. (CSU)

ASTR-110
Descriptive Astronomy **3 UNITS**
3.0 hours lecture
This course enables students to view the historical development of astronomy, to be aware of the tools of astronomy, and to critically analyze collected data to achieve an appreciation of the nature of the universe. This study begins with the ancient concept of the heavens, through medieval investigations of natural laws, and leads to present concepts in planetary systems, stellar evolution, cosmology and exobiology. (CSU/UC) (AA/AS-B2, CSU-B1, IGETC-5A)

ASTR-112
General Astronomy Laboratory **1 UNITS**
Prerequisite: "C" grade or higher or "Pass" or concurrent enrollment in ASTR 110 or equivalent.
3.0 hours laboratory
Designed to accompany and augment Astronomy 110 or Astronomy 120. Topics can include constellations and astronomical coordinates, astronomical instruments, the solar system, stars and stellar systems, and the Universe. These will be addressed using naked eye and telescope observations, laboratory experiments, computer simulations and calculations. (CSU/UC) (AA/AS-B2, CSU-B3, IGETC-5C)

ASTR-120
Exploration of the Solar System **3 UNITS**
3.0 hours lecture
This course investigates the origin of our Solar System and how its contents change with time. The course surveys and analyzes the physical properties of solar system contents, including the Sun, planets, moons, rings, comets and asteroids. Methods of space exploration will be discussed as related to past, current, and future efforts. Topics include: origins of the chemical elements in our solar system, formation and evolution of the solar system; comparative planetology (geology and atmosphere), gravitational and thermal effects on solar system objects, space exploration, and recent developments in the search for extrasolar planets. (CSU/UC) (AA/AS-B2, CSU-B1, IGETC-5A)