

ASTRONOMY (AST)

College of Letters & Science

AST 010C – Introduction to Cosmology (3 units)

Course Description: Introduction to the fundamentals of modern cosmology, humanity's changing view of the Universe, and our current understanding of its origin and evolution.

Prerequisite(s): High school algebra.

Learning Activities: Lecture 3 hour(s).

Credit Limitation(s): Not open for credit to students who have completed any quarter of the PHY 009 series or the PHY 009H series, or any upper-division physics course.

Grade Mode: Letter.

General Education: Science & Engineering (SE); Scientific Literacy (SL); Visual Literacy (VL).

AST 010G – Introduction to Stars, Galaxies, & the Universe (3 units)

Course Description: Non-mathematical introduction to astrophysics of the Universe beyond our solar system using concepts of modern physics.

Learning Activities: Lecture 3 hour(s).

Credit Limitation(s): Not open for credit to students who have taken AST 002, the former AST 010, any quarter of PHY 009 or PHY 009H, or any upper division physics course (other than PHY 137 or PHY 160).

Grade Mode: Letter.

General Education: Science & Engineering (SE); Scientific Literacy (SL); Visual Literacy (VL).

AST 010L – Observational Astronomy Lab (1 unit)

Course Description: Introduction to observations of the night sky using small telescopes in nighttime laboratory.

Learning Activities: Laboratory 2.50 hour(s).

Credit Limitation(s): Not open for credit to students who have taken AST 002 or AST 010.

Grade Mode: Letter.

General Education: Science & Engineering (SE); Visual Literacy (VL).

AST 010S – Astronomy of the Solar System (3 units)

Course Description: Introduction to naked eye and telescopic observations of events in the night sky: positions of sun, moon, planets throughout the year. Historical perspective on how our understanding of the solar system evolved to current non-mathematical astrophysical interpretation of planetary systems.

Learning Activities: Lecture 3 hour(s).

Credit Limitation(s): Not open for credit to students who have taken AST 002, any quarter of PHY 009 or PHY 009H, or any upper division PHY course (other than PHY 137 or PHY 160).

Grade Mode: Letter.

General Education: Science & Engineering (SE); Scientific Literacy (SL); Visual Literacy (VL).

AST 025 – Introduction to Modern Astronomy & Astrophysics (4 units)

Course Description: Description and interpretation of astronomical phenomena using the laws of modern physics and observations by modern astronomical instruments. Gravity, relativity, electromagnetic radiation, atomic and nuclear processes in relation to the structure and evolution of stars, galaxies and the universe.

Prerequisite(s): Good facility in high school physics and mathematics (algebra and trigonometry).

Learning Activities: Lecture 3 hour(s), Discussion/Laboratory 2.50 hour(s).

Credit Limitation(s): Not open to students who have received credit for AST 002, AST 010G, or AST 010L.

Grade Mode: Letter.

General Education: Science & Engineering (SE); Scientific Literacy (SL); Visual Literacy (VL).