

# ASTRONOMY (ASTR)

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**ASTR 1504 Descriptive Astronomy 3 s.h.**

Scientific method, introduction to modern understanding of the universe, astronomy and society, humanity's place in the universe. Astronomical observing methods, the solar system, stars and star systems, galaxies, cosmology. Recent astronomical discoveries.

**Gen Ed:** Natural Science.

**ASTR 1504L Astronomy Laboratory 1 s.h.**

Telescope and Planetarium laboratory work designed to supplement ASTR 1504. Measurement techniques and deductive methods to determine distance and size of astronomical objects. Three hours per week.

**Prereq. or Coreq.:** ASTR 1504.

**ASTR 2609 Moon and Planets 3 s.h.**

A detailed discussion of the moon and planets, with particular emphasis on the geology of the moon.

**Prereq.:** ASTR 1504 or GEOL 1505.

**ASTR 3711 Astrophysics 1 3 s.h.**

The application of physical principles to the study of stars and stellar structure; stellar distances and dimensions; stellar spectra and chemical composition; nuclear reactions and the evolution of stars; star formation and the end states of stars.

**Prereq.:** PHYS 2611 and MATH 2673.

**ASTR 3712 Astrophysics 2 3 s.h.**

The application of physical principles to the study of the Milky Way and other galaxies; including stellar populations; galactic structure; galaxy interactions; galactic distances and large scale structure of the universe; introduction to cosmology.

**Prereq.:** ASTR 3711.

**ASTR 4811 Observational Astronomy 1 3 s.h.**

Photoelectric photometry, photographic and CCD imaging techniques, spectroscopy, methods of data reduction. Some night observatory work included.

**Prereq.:** PHYS 2611 and MATH 2673.

**ASTR 4812 Observational Astronomy 2 3 s.h.**

Photoelectric photometry, photographic and CCD imaging techniques, spectroscopy, methods of data reduction. Some night observatory work included.

**Prereq.:** PHYS 2611 and MATH 2673.

**ASTR 4815 Undergraduate Astronomy Research 3 s.h.**

Research conducted under the direction of a faculty member. The grading is Traditional/PR.

**Prereq.:** PHYS 3703 and PHYS 3704.

**Gen Ed:** Capstone.