# **ASTRONOMY (ASTR)**

ASTR 100 Introductory Astronomy: Overview of the Universe (4 Credits) Recommended preparation: MTH 60 or MTH 98 or placement into Math level 10.

An overview of the main ideas in our current view of the universe, and how they originated. Galaxies, quasars, stars, pulsars, and planets. Intended primarily for non-science majors interested in a one-quarter survey of classical and modern astronomy.

#### ASTR 121 Astronomy: Solar Systems (4 Credits)

Recommended Preparation: MTH 60 or MTH 98 or placement into Math level 10

Introduces the solar system and other planetary systems to a non-science major audience. Examines topics that include the sun, the origin and exploration of the solar system, the formation of planets, the nature of comets and asteroids, the possibility of life on other worlds, and the characterization of planets beyond the solar system. ASTR 121, ASTR 122, and ASTR 123 may be taken in any order.

### ASTR 122 Astronomy: Stars and Stellar Evolution (4 Credits)

**Recommended preparation:** MTH 60 or MTH 98 or placement into Math level 10.

Introduces planet and constellation identification for a non-science major audience. Presents concepts of observed properties of stars, internal structure of stars, and the stages of a star's life (e.g., stellar births, white dwarfs, supernovae, pulsars, neutron stars, and black holes). ASTR 121, ASTR 122, and ASTR 123 can be taken in any order.

#### ASTR 123 Astronomy: Galaxies and Cosmology (4 Credits)

Recommended Preparation: MTH 60 or MTH 98 or placement into Math level 10.

Introduces fundamental concepts of the universe for a non-science major audience. Explores modern cosmological concepts of the Big Bang, dark matter, curved space, black holes, and galaxy formation. Unpacks the scientific development of these concepts and explains the basic physics underlying them. ASTR 100, ASTR 121, ASTR 122, and ASTR 123 can be taken in any order.

## ASTR 199 Selected Topics: Astronomy (1-6 Credits)

This course is in development.