

## **Astronomy (Ast)**

### ***101 Introduction to Astronomy* 4 credit hours**

This course provides an overview of astronomy for science and non-science majors. Topics covered include the foundations of astronomy (charting the heavens, the Copernican Revolution, light and matter, telescopes), our planetary system (the solar system, Earth and its Moon, the terrestrial planets, the jovian planets, moons, rings, and plutoids), the stars (the Sun, measuring the stars, the interstellar medium, stellar evolution, neutron stars and black holes), galaxies and the universe (the Milky Way Galaxy, normal and active galaxies, galaxies and dark matter, cosmology, life in the universe). Three lecture hours and two lab hours per week. Lab work will include tutorials, planetarium software, and telescope observation. (Fall and Spring, as needed)

### ***360 Earth and Universe* 4 credit hours**

This course will explore the earth, moon, sun, solar system, Milky Way, and universe. It will cover the history of astronomy; the relationship between the earth and its astronomical neighbors; and theories of the origin of the earth, moon, planets, stars, galaxies and universe. Lab activities will include observations of the sun and moon, the celestial sphere, star gazing, atomic spectra and telescope setup. Three lecture hours and two lab hours per week. Prereq: Chem 116 and Phys 212, or permission of instructor. (Fall and Spring, as needed)