

# ASTRONOMY (ASTR)

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## **ASTR 17400 Solar System Astronomy (LA)**

Survey of the solar system from the earliest conceptions of motions in the sky to modern findings of space exploration in the solar system. Emphasis is placed on physical processes and dynamics of the moon, earth, planets, comets, meteoric matter, and asteroids. Astronomical instruments and measurements. Prerequisites: Math placement in group 2 or 1 or MATH 11000. (Y)  
Attributes: SC, TIII, TWOS  
3 Credits

## **ASTR 17500 Stars, Galaxies and the Universe (LA)**

Survey of the universe lying beyond the solar system; introduction to characteristics and motions of stars; stellar structure and evolution; interstellar matter; star clusters, the sun, galaxies; introduction to cosmology; the question of life in the universe; astronomical instruments and measurements. Prerequisites: Math placement in group 2 or 1 or MATH 11000. (Y)  
Attributes: SC, TIDE, TIII  
3 Credits

## **ASTR 17800 Astronomy Laboratory (LA)**

Activities include both outdoor observing sessions and indoor lab exercises. Outdoor sessions emphasize learning the night sky and hands-on use of telescopes. Indoor laboratories emphasize data analysis through the use of celestial globes, spectroscopes, computer simulation, and image processing. Prerequisites: ASTR 17400 or ASTR 17500 (either may be taken concurrently). (IRR)  
1 Credit

## **ASTR 37200 Astrophysics (LA)**

Calculus-based introduction to the thermal, electromagnetic, and quantum mechanical properties of celestial objects. Topics include celestial mechanics, interactions of radiation with matter, thermal radiation, formation of spectral lines, and structure, formation and evolution of stars and galaxies. Prerequisite: PHYS 21800. (S,O)  
3 Credits