ASTRONOMY (AST)

AST 2002C - Introduction to Space Science (3 Credits)
This course provides a comprehensive look at modern astronomy, emphasizing the use of the scientific method and the application of physical laws to understand the Universe including Earth and its environment. Throughout this course, students will develop the ability to discern scientific knowledge from non-scientific claims by using critical thinking.
Attribute(s): CRIT - GE Critical Think Competency, ESSE - Earth and Space Science, GE Critical Think Competency, GENC - Gen. Ed -Natural Sci+Lab, Gen. Ed -Natural Sci+Lab, SCIQ - Scientific Inquiry, Scientific Inquiry

AST 2004C - Stellar Astronomy (4 Credits)
General principles of Astronomy and emphasis on the structure and evolution of stars, stellar systems, galaxies and the universe. Topics may include stellar birth and death, neutron stars and black holes, galactic distances and the expansion of the universe. Observing of stars, constellations, binary and variable stars, star clusters, nebulae.
Attribute(s): ESSE - Earth and Space Science

AST 2100C - Solar System Astronomy (4 Credits)
Historical and general principles of Astronomy with emphasis on the structure and evolution of the Solar System, the laws of planetary motion, and the physical aspects of the sun, planets, and interplanetary debris. The main objectives of the course are to familiarize you with the night sky, observing techniques and instrumentation of state of the art observatories, and to gain knowledge of the scientific process involved in astronomical discoveries.
Attribute(s): ESSE - Earth and Space Science

AST 3211 - Essentials of Astrophysics (3 Credits)
The physics and dynamics of stars, including star formation and stellar evolution. Also covers spectroscopy (with focus on stellar applications), binary stars and evolution, and exoplanets.
Prerequisite(s): (PHY 2049 and PHY 2049L) or PHY 2049C
Attribute(s): ESSE - Earth and Space Science

AST 3722C - Observational Astronomy (3 Credits)
The fundamental principles and techniques used in planning, making, reducing and analyzing modern astronomical observations. Will include classroom activities, indoor laboratory work, data analysis and outdoor night observations. Provides an introduction to numerical treatment of observations, CCD imaging, digital imaging processing and astronomical spectroscopy.
Prerequisite(s): (PHY 2048C or (PHY 2048 and PHY 2048L)) and (AST 2100C or AST 2004C)

AST 4930 - Special Topics in Astronomy (3 Credits)
Special sessions exploring the current issues in Astronomy. Topics may vary and are selected on the basis of what is new or currently relevant in the field.
Prerequisite(s): (PHY 2048C or (PHY 2048 and PHY 2048L)) and (AST 2100C or AST 2004C)