

SCI 104C : Astronomy and Space

Acquaints students with the complexities of the universe. The theoretical portion of the course is divided into four topics: the history of astronomy and telescopes; the planets and moons of our solar system; the birth, life, and death of stars; and galaxies and the large-scale structure of the universe. The lab portion of the course consists of in-class activities, outdoor observations during class, and independent labs in which the student makes observations of objects in the night sky.

Credits 4

Lab/Practicum/Clinical Hours 2

Lecture Hours 3

Recommended Prerequisites

High school Algebra I or equivalent

Learning Outcomes

- Describe Earth's place in the solar system, the Milky Way galaxy and the universe.
- Be able to explain the tides, seasons, eclipses and the phases of the moon.
- Identify the main characteristics of each planet and some of the moons revolving around them.
- Demonstrate an understanding of the Big Bang Theory.
- Demonstrate an understanding of the formation of the solar system.
- Distinguish among various aspects of the universe: galaxies, black holes, dark matter, etc.
- Describe the process that powers the stars.
- Explain the various characteristics of stars and their life cycles.
- Identify the major constellations and develop a familiarity with the night sky.
- Demonstrate an understanding of comets, meteors, asteroids and auroras.
- Identify those scientists who have contributed major research information to our ideas of the universe.
- Explain the history, difficulties and rewards of the space program.