Natural Science Division Complete Set of SLOs

Department : Astronomy

Date: December 1, 2010

Program-Level SLOs

Students will be able to apply the Scientific Method to the solution of scientific problems.

Students will be able to identify and appreciate ways in which astronomy affects their daily lives.

Students will be able to describe the structure and contents of the Universe and major events in the history of the Universe that led to the formation of the Earth.

Students will be able to explain how the study of electromagnetic radiation and the application of the laws of physics reveal the properties of stars, planets, and galaxies.

Course Level SLOs

Astronomy 12: Astronomy Laboratory

Students will be able to apply the Scientific Method to the solution of scientific problems.

Locating Celestial Objects – Using a Cassegrain reflecting telescope, students will be able to align the telescope and point it at several objects, including the Moon, planets visible to the naked eye, planets invisible to the naked eye, bright stars, faint stars, and diffuse objects (clusters, nebulae and galaxies).

Astronomy 13abc: Astronomical Optics

Students will be able to apply the Scientific Method to the solution of scientific problems.

Optical Surfaces – The student will understand and apply the principles of testing optical surfaces.

Astronomy 20: The Solar System

Students will be able to apply the Scientific Method to the solution of scientific problems.

Seasons and Climate – Students will be able to explain the causes of seasonal variations in the length of the day, direction of sunrise and sunset, and the amount of solar heating on the Earth.

Astronomy 25: Stars and Galaxies

Students will be able to apply the Scientific Method to the solution of scientific problems.

Electromagnetic Radiation – Students will explain how electromagnetic radiation and astronomical instruments are used to reveal the properties of stars and planets.