Miami Dade College

Course Description

AST1002L | Descriptive Astronomy | 3.00 credits

The solar system, the nature of electromagnetic radiation, astronomical instruments, stars, galaxies, and cosmology. Sessions are devoted to viewing the sky and to laboratory activities. Special fee.

Course Competencies

Competency 1: The student will demonstrate knowledge and comprehension of the gathering of scientific data by:

1. Using various instruments to make relevant astronomical measurements.
2. Recording data in a precise and organized manner.

Competency 2: The student will demonstrate knowledge and comprehension of experimental data analysis by:

1. Demonstrate knowledge and comprehension of experimental data analysis
2. Interpreting information from data graphs.
3. extracting information from data graphs.
4. Using numbers in scientific notation.
5. Performing relevant calculations using experimental data.
6. Identifying different sources of experimental error.
7. Evaluating the accuracy of results.
8. Relating experimental results to theory.

Competency 3: The student will demonstrate knowledge and comprehension of star charts by:

1. Describing celestial coordinates.
2. Locating and/or identifying astronomical objects using celestial coordinates.
3. Using star charts properly, given specific terrestrial latitudes, dates, and times.

Competency 4: The student will demonstrate knowledge and comprehension of the sky by:

1. identifying the most prominent constellations and solar system objects visible in the sky throughout the term of study.
2. locating constellations precisely enough to allow observations

Competency 5: The student will demonstrate knowledge and comprehension of telescopes by:

1. Identifying the components, structure, and functioning of a telescope.
2. Focusing and orienting a telescope.
3. Taking proper care of a telescope.

Competency 6: The student will demonstrate knowledge and comprehension of the rudiment's laboratory report writing by:

1. Distinguishing the different components of lab reports.
2. Formatting graphs correctly.
3. Formatting data tables correctly.
4. Using the proper number of significant figures in data and results.
5. Discussing experimental results
6. Supporting all conclusions.
7. Writing lab reports demonstrating proper English usage and logical organization.

Learning Outcomes:

- Communicate effectively using listening, speaking, reading, and writing skills
- Solve problems using critical and creative thinking and scientific reasoning

Updated: Fall 2025

- Demonstrate an appreciation for aesthetics and creative activities