

In accordance with [Board of Regents policy 3.20](#), the following required information is available below:

Fall 2026

I. Course title and number as designated in the institutional course catalog

EARTHSCI 1110 Astronomy Laboratory 01-03

II. A course description including learning objectives that students are expected to achieve by the end of the course

A. Course Description:

Exploration of astronomical phenomena through the use of telescopes, charts, computer simulations, and other laboratory equipment. Students will derive the characteristics of astronomical objects and examine their behavior. Student Learning Outcomes include Critical Thinking and Scientific Reasoning. Lab, 2 periods. Prerequisite(s): consent of instructor. Prerequisite(s) or corequisite(s): EARTHSCI 1100.

B. Course Level Learning Objectives:

Upon completion of this course, students will be able to:

- Use the tools of astronomy and physics to obtain information about objects in the universe.
- Apply the appropriate astronomy and physics laws to provide quantitative information about objects in the universe.



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- Evaluate astronomical data and draw conclusions about the characteristics of objects in the universe.

III. A general outline of the topics to be covered throughout the course:

- i. The Sky
 - a. Angles
 - b. The Celestial Sphere
 - c. Star Charts
 - d. Seasons
 - e. Lunar Phases
- ii. Astronomical Tools
 - a. Telescopes
 - b. Physical Laws
 - c. Image Analysis
 - d. Magnetometers
 - e. Spectroscopes
 - f. Geometry
 - g. Photometry
 - h. Graphs

IV. List of required textbooks, readings, and other materials necessary for the course

Printed Laboratory Exercise Descriptions (supplied in class)

V. General description of the types of assessments used in the course (e.g., exams, papers, projects, experiential learning):

Laboratory Exercises