

Minnesota State University Moorhead

GEOS 361L: Problems in Planetary Science

A. COURSE DESCRIPTION

Credits: 1

Lecture Hours/Week: 1

Lab Hours/Week: 0

OJT Hours/Week: *.*

Prerequisites:

This course requires either of these prerequisites

GEOS 109 - Processes & History of a Dynamic Planet

GEOS 209L - Problems in Introductory Geology

Corequisites: None

MnTC Goals: None

This independent study self-learning module provides a guided opportunity to practice applying concepts from GEOS 360 (Planetary Science) through science reasoning challenges, real-world problems, and self-guided labs, with particular focus on selected astronomy issues required for Earth Science Teaching licensure in Minnesota. Concepts addressed include planetary processes, age dating, geochemical evidence for formation of the Earth and Moon, seasons, phases of the Moon, stellar evolution, galactic evolution, Kepler's Law, and measuring distances in space. Pre-requisite = GEOS 109 or 209L, or other college-level science course. Co-enrollment in GEOS 360 Planetary Science recommended.

B. COURSE EFFECTIVE DATES: 02/10/2022 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Astronomy
2. Planetary Geology

D. LEARNING OUTCOMES (General)

1. Model and explain key theories of planetary science and astronomy, including identifying underpinning evidence.
2. Engage in mathematical calculation of stellar and galactic distances, geochemical evolutionary trends, and orbital relationships.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted