ASTR 301 – The Solar System (3)
Course Outline

Quantitative and descriptive properties of the Solar System including the physics of the planets, their satellites, comets and interplanetary media. Possible origins of the Solar System. 3 lectures. Prerequisite: PHYS 132 or PHYS 122 and MATH 141 or MATH 161.

Learning Objectives and Criteria:

The expected outcomes are:
(1) A better understanding of the applications of physical laws and mathematical principals to planetary processes
(2) An understanding and knowledge of the constitution, formation, and evolution of the solar system

Text and References:
DePater/Lissau, Planetary Sciences, Cambridge University Press
Lodders/Fegley, The Planetary Scientist’s Companion, Oxford University Press

Content and Method:
Method: ASTR 301 is offered in a traditional lecture format. It meets a total of 3 hours a week.

Content: ASTR 301 will adhere to the following topics:

• The planetary system including the earth, the sun, the moon
• Other planets in our solar system and solar system objects
• Extrasolar planets

Lectures
The approach is on both a descriptive and quantitative basis, emphasizing the application of mathematics and of physical laws.

A student observatory with at least one telescope is available.

The student is expected to study the text and necessary references.

Methods of Assessment:

Student accomplishment is measured by examinations, projects, and assigned problems.