

ASTR 180 : Planetary Astronomy

A survey of modern solar system astronomy with emphasis on the underlying physical principles. Topics discussed include the celestial sphere and aspects of the night sky, the structure and evolution of the Sun's planetary system, comparative planetology, and theories of the formation of planetary systems. Intended for science majors and prospective science teachers.

Credits 3

Lecture Hours 3

Designation

DP

Recommended Preparation

The student should have a good operational familiarity with high school algebra.

Course Outcomes

- Outline the development of planetary astronomy from ancient times to present and explain the role of the scientific method in this historic context.
- Describe the major geological and atmospheric features of the objects in our Solar System.
- Describe the physical and chemical properties of the objects in our solar system and apply the concept of comparative planetology.
- Outline the origins of our Solar System and formulate models that explain the different physical and chemical characteristics of objects within the Solar System.
- Describe the properties of our Sun and their effects on objects in the Solar System.
- Outline techniques for discovering extrasolar planets and extraterrestrial life.