

ASTR 121 : ASTRONOMY: SOLAR SYSTEMS

Transcript title

Astronomy: Planetary Systems

Credits

4

Grading mode

Standard letter grades

Total contact hours

60

Lecture hours

30

Lab hours

30

Recommended preparation

MTH 60 or MTH 98 or placement into Math level 10.

Course Description

Introduces the solar system and other planetary systems to a non-science major audience. Examines topics that include the sun, the origin and exploration of the solar system, the formation of planets, the nature of comets and asteroids, the possibility of life on other worlds, and the characterization of planets beyond the solar system. ASTR 121, ASTR 122, and ASTR 123 may be taken in any order.

Course learning outcomes

1. Explain the motions and phases of astronomical objects visible to the naked eye in the night sky using a solar system model.
2. Compare and contrast planets and moons and differentiate between comets, asteroids, and meteorites using an understanding of our solar system.
3. Access space science research from a variety of sources, evaluate the quality of the information, and compare it to current models of astronomical processes.
4. Use scientific reasoning to interpret field-based observations and measurements of astronomical phenomena and compare the results with current astronomical models.
5. Assess the contributions of astronomy to our evolving understanding of global change and sustainability while placing the development of astronomy in its historical and cultural context.

Content outline

1. The Earth and our moon.
2. The other planets and moons in our solar system.
3. Comets, meteorites, and asteroids.
4. Detection of other solar systems, and the formation of our solar system and others.

5. Life in our solar system and possibilities of life elsewhere.
6. Topics in the history of astronomy may be included by the instructor.

Required materials

May require a textbook.

General education/Related instruction lists

- Science Lab