Physics and Chemistry of the Solar System
EOS/PHYS 895

Text Book: "Physics and Chemistry of the Solar System" by John S. Lewis

Synopsis: This is a graduate-level survey course on the physical and compositional properties of the Solar System and their physical significance.

Topics include an introduction into stellar formation and evolution, and a general description of the Solar System, its formation and evolution. Other proposed topics include the Sun and Heliosphere; planets, moons, and small bodies (e.g., comets); and the interaction of planets with solar
and galactic particles. Material will include recent observations from space missions that involve UNH scientists.

The general questions addressed include:

How was the composition of the various bodies in the Solar System (e.g., Sun, planets, comets, asteroids) established and what causes variations?

How are observations of elemental, isotopic, and ionic charge state composition used to determine physical conditions and formation processes?

Sample Class Schedule

Introduction and Overview

Astronomical Perspective 1
Astronomical Perspective 2

General Description of the Solar System

The Sun and Solar Nebula 1
The Sun and Solar Nebula 2
The Sun and Solar Nebula 3

Solar Wind/CMEs/SEPs 1
Solar Wind/Heliosphere 2

Comets / Meteors / Meteorites / Asteroids 1
Comets / Meteors / Meteorites / Asteroids 2

Terrestrial/Rocky Planets 1
Terrestrial/Rocky Planets 2

Terrestrial/Rocky Planets 3

Gaseous/Icy Planets 1
Gaseous/Icy Planets 2
Gaseous/Icy Planets 3

Moons and Satellites 1
Moons and Satellites 2

Comparative 1
Comparative 2

Interstellar Medium

Life