

# Syllabus (ASTR 1010)

## ASTR 1010 : The Solar System

### The University of Georgia

### Fall Semester 2011

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#### Course Description:

This course will cover the origin and evolution of the Solar System. Even with the amazing pace of technology development, our Solar System is still full of surprises and unanswered puzzles. You will study interesting facts about our Solar System (inner rocky planets, outer gas giant planets, and minor bodies), and you will also study the similarities and dissimilarities between our Solar System and other planetary systems around stars.

**Credits:** 3 hours

**Prerequisite:** None

**Textbooks:** "Universe: The Solar System, 4th Ed." published by W.H. Freedman, ISBN: 1-4292-5952-3

I will mostly follow the textbook and about 1/3 of test questions will be coming from "Review Questions" at the end of each chapter. About 1-2 days before each lecture, I will upload my electronic lecture notes (in the PPT format).

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**Grading:** Traditional letter (A-F) grades will be assigned based on **three in-class exams**. There will be no mid-term nor final. To give you a chance to recover from one bad exam, I will weigh three exams differently. The worst exam score will be counted only 50% compared to other exams. See "Final Score Calculation" for details. Letter grades will be assigned strictly based on your final score (see the table below) and final scores will be rounded up to the nearest integer (e.g., 89.6 --> 90, 89.4 --> 89).

	87 <= B+ < 90	77 <= C+ < 80	60 <= D < 70	F < 60
A >= 90	83 <= B0 < 87	73 <= C0 < 77		
	80 <= B- < 83	70 <= C- < 73		

#### Final Score Calculation:

Final Score = 80% (the average from two best in-class exams) + 20% (worst in-class exam)

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**Make-up of missing exam:** Only for a legitimate excuse (with an official document or a well-advanced notice before a test), you will be given a chance of make-up test.

## Course Topics (Tentative):

Date	Lecture #	Topic
08/16	1	Chapter 1 : Intro to Astronomy
08/18	2	Chapter 1 : Astronomical jargon (angle, power of ten, distance, size, etc.)
08/23	3	Chapter 2 : Ancient astronomy, changing sky, celestial coordinate.
08/25	4	Chapter 2 : Seasons, time, and calendar
08/30	5	Chapter 3 : Motion of the Moon. Eclipses
09/01	6	Chapter 4 : Motions of planets
09/06	7	Chapter 4 : Sun-centered model
09/08	8	Chapter 5 : Nature of light
09/13	9	Chapter 5 : Observation to physical properties
09/15		in-class exam #1
09/20	10	Chapter 6 : Optics and telescopes
09/22	11	Chapter 6 : Multi-wavelength astronomy
09/27	12	Chapter 7 : Structure of our solar system
09/29	13	Chapter 7 : Beyond simple images (ages, interior structure, etc.)
10/04	14	Chapter 8 : Origin of our solar system
10/06	15	Chapter 8 : Extra-solar planetary systems
10/11	16	Chapter 9 : Understanding the Earth
10/13	17	Chapter 9 : Changing Earth
10/18	18	Chapter 10 : The Moon
10/20		in-class exam #2
10/25	19	Chapter 11 : Earthlike planets
10/27	20	Chapter 11 : Venus
11/01	21	Chapter 11 : Mars
11/03	22	Chapter 12 : Jovian Planets
11/08	23	Chapter 13 : Moons of Jovian planets
11/10	24	Chapter 14 : Uranus, Neptune, Pluto
11/15	25	Chapter 14 : Kuiper Belt and beyond
11/17	26	Chapter 15 : Minor bodies in Solar System
11/22	-----	Thansgiving
11/24	-----	Thansgiving
11/29	27	Chapter 28 : Life in the Solar System
12/01		in-class exam #3