

REVISED SYLLABUS: ASTRONOMY 1010 – SPRING 2012
SOLAR SYSTEM ASTRONOMY

Dr. Michael Crenshaw

Office Hours: Mon, Wed, Fri.: 9:00 – 11:50 AM
(or give me a call to see if I'm in my office)

Office Location: Room 710, One Park Place

Phone: 404-413-6020

Email: crenshaw@chara.gsu.edu

Class Location: 169 Petit Science Center

Class Times: 1:30 – 2:45 PM; Monday, Wednesday

Required Texts: **The Cosmic Perspective**, 6th Edition; Bennett, Donahue, Schneider, and Voit (Pearson/Addison Wesley)

Activities in Astronomy, 2011 Edition, J.W. Wilson (lab textbook)

The purchase of a new textbook provides access to <http://www.masteringastronomy.com>, which has valuable self-study activities, including the tutorials used in class. If you purchased a used textbook, you should go to the above site to purchase access.

Description: This is the first of a two-semester lecture plus laboratory course on astronomy with an emphasis on celestial motions, history of astronomy, gravity, electromagnetic radiation, telescopes, and physical properties of the planets.

Objectives: The principal objectives of this course are to examine the methods that astronomers use to obtain information about celestial bodies, explore the nature of scientific research, and provide a better understanding of our place in the Universe.

Prerequisites: None

Laboratory: You are required to attend the lab section for which you have registered. To pass the course, you must pass the lab. All labs meet in Kell Hall. **Labs start on the third week of the semester.** Additional information will be provided on the first day of your lab class.

Grading: There will be four quizzes. If you are not present for a quiz, you will receive a zero. You will be allowed to drop the quiz with the lowest grades (including those that are missed). There will be no makeups.

The quizzes and final exam are multiple choice. The final exam is comprehensive. Your course grade will be determined as follows:

Lab: 25%

Quiz average: 35%

In-class exercises: 15%

Final exam: 25%

Additional Info.: This syllabus provides a general plan for the course; deviations may be necessary. Quiz dates are targets and subject to change. Attendance in class is strongly recommended, since lectures will provide supplemental material that will appear on the tests. Attendance is required in each laboratory session to receive a nonzero grade for that exercise. All students should be aware of the University's Policy on Academic Honesty in the **Student Handbook**.

Lectures: The lectures will consist of PowerPoint slides, laboratory demonstrations, and other audiovisual presentations. A version of the PowerPoint slides will be posted on the following web site:

<http://www.chara.gsu.edu/~crenshaw/astr1010.html>

Slides from lectures will be posted after the completion of each chapter in class.

Class Schedule:

Dates	Lecture Topics	Chapter
Jan 9,11	Overview	1
Jan. 18,23	Celestial Motions	2
Jan. 25, 30	History of Astronomy	3
Feb. 1	Quiz 1	
Feb. 6, 8	Motion, Energy, Gravity	4
Feb. 13, 15	Light and Matter, Spectra	5
Feb. 20	Telescopes	6
Feb. 22	Quiz 2	
Mar. 5, 7	Introduction to the Solar System	7
Mar. 12, 14	Formation of the Solar System	8
Mar. 19, 21	Terrestrial Planets - Geology	9
Mar. 26	Quiz 3	
Mar. 28, Apr. 2	Terrestrial Planets - Atmospheres	10
Apr. 4, 9	Jovian Planets	11
Apr. 11	Asteroids, Comets, Kuiper Belt Objects	12
Apr. 16	Extrasolar Planets	13
Apr. 18	Quiz 4	
Apr. 23	Review	

Other Important Dates:

Jan. 16	MLK day (no class)
Feb. 27 – Mar. 2	Spring break
April 25	Final Exam at 1:30 pm in room 169 Petit