

ASTRONOMY 1 – SYLLABUS – SUMMER 2013

Section Number 0551 M,T,W,TH 10:35 A.M. – 1:05 P.M.

INSTRUCTOR: Richard Rains

OFFICE PHONE: (818) 364-7702

eMAIL: rainsre@lamission.edu

WEB SITE: <http://www.lamission.edu/~rainsre>

OFFICE HOURS: M, T, TH, W 1:30 – 3:30 P.M.
Office number: CMS 241

TEXTBOOK Required: Lecture-Tutorials for Introductory Astronomy:
ISBN-10: 0321820460
Amazon: \$31.57
Recommended: "Astro" by Backman/Seeds, 1st ed
ISBN 0-538-73804-9
Campus Bookstore: \$86 new/\$65 used
Amazon: \$67.76

<http://www.CampusBooks4Less.com/prices/0470407352>

STUDENT LEARNING OUTCOMES

1. Explain the methods astronomers use to explore the natural phenomena of the universe, including observation, hypothesis development, and evaluation of evidence.
2. Demonstrate a working knowledge of the historical development of key astronomical concepts such as the ever-unfolding discovery of our place in the universe, including the latest developments in planetology and cosmology.
3. Identify and evaluate the causes and possible solutions to problems of environmental concern such as global warming, resource conservation and pollution.

COURSE DESCRIPTION: Addresses such questions as:
What is our place in the universe?
What kinds of things occupy the universe?
What am I actually seeing when I look up at the sky (moon, planets, stars, etc)?
What is it like on other planets?
Where did the universe come from? Where is it going?
Is there life elsewhere in the universe?
How do we know what we know?

COURSE OUTLINE: The course outline is the same as the table of contents of the textbook, “Astro”.

GRADES: The final grade will be determined by:

Daily Quiz average:	25%	(Two of these will be dropped)
Test 1, June 17	25%	} (The lowest test will be dropped)
Test 2, June 25	25%	
Test 3, July 8	25%	
Final Exam (Ch. 1-15) July 11	25%	

Grades and syllabus are posted on the online at <http://www.lamission.edu/~rainsre>

A brief **Tutorial Quiz** will be given during the first 15 minutes of each class meeting only. The quiz will cover the material of the previous day’s workshop and will allow open notes. Missed quizzes may not be made-up and will be recorded as zero. The two lowest Quiz grades, however, will be dropped at the end of the semester.

The three **tests** will take about one hour each. They are closed book, closed notes. No make-up tests will be given. However, the single lowest test grade will be dropped at the end of the semester. (Not including the final examination.) **The key to passing the one-hour-tests and the final exam is the Study Guide**, which can be found at <http://www.lamission.edu/~rainsre> .

The **final examination** is closed book, closed notes, and will be comprehensive: it will cover the entire course.

No early or late examinations or quizzes will be given under any circumstances. Please arrange your life accordingly.

LECTURE SCHEDULE:

Week 1

June 10: Chapters 1 and 2: The Cosmos; Motions of the Moon, Sun, and Stars

June 11: Chapter 3: Copernicus, Kepler, Galileo and Newton

June 12: Chapter 4: Light and Telescopes and Other Instruments

June 13: Chapter 5: Spectroscopy and the Sun

Week 2

June 17: Movie: Myth Busters "Moon Myth": **Test 1:** Chapters 1 through 5

June 18: Chapter 6 and 7: Stars: Structure and Formation of Stars

June 19: Chapter 8: Deaths of Stars and

June 20: Chapter 9: Milky Way Galaxy

Week 3

June 24: Chapter 10: Galaxies

June 25: **Test 2:** Chapters 6 through 10

June 26: Chapter 11: The Universe

June 27: Chapter: 12: Origin of the Solar System (Except 12.3)

Week 4

July 1: Chapter 13: Earth

July 2: Chapter 13: Moon

July 3: Chapter 13: Mercury and Venus and Mars

July 4: Holiday

Week 5

July 8: Movie: Mars Rovers: **Test 3:** Chapters 11 through 13

July 9: Chapter 14: Jupiter and Saturn, Uranus, Neptune, Pluto

July 10: Chapter 12.3: Comets and asteroids: Chapter 15: Life Elsewhere

July 11: Life: Final Exam Chapters 1 through 15

CELL PHONE POLICY: No cell phone activity of any kind, including text messaging, is allowed while class is in session.

MEDIA PLAYER POLICY: Please remove all ear buds and headphones upon entering the classroom.

ETHICS POLICY: Any student found to be cheating on any quiz or test will receive an immediate zero on that activity.

DATES listed on this syllabus may change. Each student is responsible for current class announcements, whether he/she is present in class or not.

Last Day to drop the class without a "W": June 13

Last Day to drop the class with a "W": July 6

NOTE: It is the student's responsibility to drop the class. After the final census date, the instructor is not responsible to exclude students who have become inactive.