Astronomy 103 Spring 2013 Instructor: Dr. Don Summers 915-7032
Lewis 101 TTh 1:00-1:50 Office Hours: Lewis 221 WThF 4-5
Text: Cosmic Perspective, Bennett et al., 6th Edition Lab Instructor
Lab Section: 1,2 Wed 7-8:50, 9-10:50 Lewis 1 Jim Reidy
Lab Section: 3,4 Thu 7-8:50, 9-10:50 Lewis 1 Cody Arceneaux
http://www.phy.olemiss.edu/~ttorma/Astro/Lab/Lab.html
ASTR 103 Lab Manual: Buy at Rebel Graphics, Sam-Gerard Hall

Date	Subject	Read this chapter before class
22 Jan	Introduction, Cosmic address, light year	1
24 Jan	Stars, Constellations, Long/Lat., Seasons, Precession	2
29 Jan	Lunar phases, eclipses, retrograde motion, parallax	2
31 Jan	Earth Size, Kepler's Laws, Venus' Phases, Jupiter's Moons	3
5 Feb	Time, Calendar, RA, Dec., Star Tracks, Long., Lat.	S1
7 Feb	Energy, Temperature, Matter Phases, atoms, energy levels	4
12 Feb	Motion, orbits, Newton's & Kepler's Laws	4
14 Feb	Gravity, Escape Velocity, Weight and Mass, Tides	4
19 Feb	FIRST HOUR EXAM	
21 Feb	Light waves, spectra, thermal radiation, doppler shift	5
26 Feb	Telescopes: Optical, Radio, and X Ray; Diffraction Limit	6
28 Feb	Solar System Tour and Formation, Radioactive Dating	7,8
5 Mar	Terrestrial Planets, tectonics, volcanoes, magnetism	9
7 Mar	Planet Earth: S-waves, P-waves, Continental Drift	9
19 Mar	200 inch telescope at Mount Palomar	6
21 Mar	SECOND HOUR EXAM	
26 Mar	Terrestrial Atmospheres, O2, CO2, Ozone	10
28 Mar	Greenhouse effect, Ozone, Escape Velocity	10
2 Apr	Solar System Epic Adventure, Voyager Spaceflight	11
4 Apr	Interiors/Atmospheres: Jupiter, Saturn	11
9 Apr	Interiors/Atmospheres: Uranus, Neptune	11
11 Apr	Rings & Moons: Jupiter, Saturn, Uranus, Neptune	11
16 Apr	Rock and Ice: Asteroids and Comets	12
18 Apr	Pluto and Charon, Kuiper Belt, Meteors, Meteor Showers	12
23 Apr	Planets around stars beyond the sun	13
25 Apr	THIRD HOUR EXAM	
30 Apr	Sunspots, Solar Magnetism, Flares, Energy Transport	14
2 May	Why does the sun shine? Nuclear fusion, neutrinos	14
9 May	COMPREHENSIVE FINAL EXAM 12:00 noon Thursday	1-14

Grading Scheme			
	Lab	25%	You must do at least 75% of the labs to pass.
	Pop Quizzes	15%	It helps to read the chapter before class.
	1st Exam	12%	You will need a scientific pocket calculator.
	2nd Exam	12%	The Texas Instruments TI-30Xa is a good choice.
	3rd Exam	12%	Bring a picture ID to tests.
	FINAL EXAM	24%	Plan on the final exam on 9 May, not earlier.

The 1st lab is Wednesday night, 30 January. Bring a jacket if it is cold.
Come on the night and time that you have signed up for. Come if it rains.
Labs are a required part of the course.
Bring a scientific calculator lab.

$$10^{11} \times 10^{11} = 10^{22}$$

stars/galaxy x galaxies = stars in the universe

Reasonable accommodations for absences and for students with disabilities will be provided.

Learning Objectives: To learn how planets, the sun, and other wonders of the solar system work and to find out how astronomers made these discoveries and to do some of the actual experiments.