

Astronomy 103 Spring 2014 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., 7th Edition Lab Instructor
 Lab Section: 1,2 Wed 7-8:50, 9-10:50 Lewis 1 Saminda Adikaram
 Lab Section: 3,4 Thu 7-8:50, 9-10:50 Lewis 1 Saminda, Matthew Possehl
<http://www.phy.olemiss.edu/%7ettorma/Astro/Lab/SpringLab.html>
 ASTR 103 Lab Manual: Buy at Rebel Graphics, Sam-Gerard Hall Read

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

Grading	Lab	25%	You must do at least 75% of the labs to pass.
Scheme	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 8 May, not earlier.

The 1st lab is Wednesday night, 29 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.