Astronomy 103 Fall 2008 Instructor: Dr. Don Summers 915-7032 Lewis 101 TTh 1:00-1:50 Office Hours: Lewis 221 TThF 2-3 Text: Cosmic Perspective, Bennett et al., 5th Edition Lab Location: Kennon Observatory Section: 1,2 Monday 7-8:50, 9-10:50 George Richardson Section: 3,4 Tuesday 7-8:50, 9-10:50 Arunava Roy

http://www.phy.olemiss.edu/~kakukk/Astro/Lab/Lab.html

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Chapter
Date
       Subjects
                                                                 Reading
                                                                (before class)
26 Aug Introduction, Cosmic address, light year
                                                                 1
28 Aug Stars, Constellations, Long/Lat., Seasons, Precession
                                                                 2
2 Sep Lunar phases, eclipses, retrograde motion, parallax
                                                                 2
4 Sep Earth Size, Kepler's Laws, Venus' Phases, Jupiter's Moons 3
9 Sep Time, Calendar, RA, Dec., Star Tracks, Long., Lat.
                                                                 S1
11 Sep Energy, Temperature, Matter Phases, atoms, energy levels
16 Sep Motion, orbits, Newton's & Kepler's Laws
                                                                 4
18 Sep Gravity, Escape Velocity, Weight and Mass, Tides
                                                                 4
23 Sep FIRST HOUR EXAM
25 Sep Light waves, spectra, thermal radiation, doppler shift
30 Sep Telescopes: Optical, Radio, and X Ray; Diffraction Limit
                                                                 6
2 Oct Solar System Tour and Formation, Radioactive Dating
                                                                 7,8
7 Oct Terrestrial Planets, tectonics, volcanoes, magnetism
                                                                 9
9 Oct Planet Earth: S-waves, P-waves, Continental Drift
                                                                 9
14 Oct Terrestrial Atmospheres, 02, CO2, Ozone
                                                                 10
16 Oct Greenhouse effect, Ozone, Escape Velocity
                                                                 10
21 Oct SECOND HOUR EXAM
23 Oct Solar System Epic Adventure
                                                                 11
28 Oct Interiors/Atmospheres: Jupiter, Saturn
                                                                 11
30 Oct Interiors/Atmospheres: Uranus, Neptune
                                                                 11
4 Nov Rings & Moons: Jupiter, Saturn, Uranus, Neptune
                                                                 11
6 Nov Rock and Ice: Asteroids and Comets
                                                                 12
11 Nov Pluto and Charon, Kuiper Belt, Meteors, Meteor Showers
                                                                 12
13 Nov Planets around stars beyond the sun
                                                                 13
18 Nov THIRD HOUR EXAM
20 Nov Sunspots, Solar Magnetism, Flares, Energy Transport
                                                                 14
2 Dec Why does the sun shine? Nuclear fusion, neutrinos
                                                                 14
4 Dec The Voyager Space Flight
9 Dec COMPREHENSIVE FINAL EXAM 4:00 pm Tuesday (not earlier)
                                                                 1-14
Grading
                       25% You must do at least 75% of the labs to pass.
          Lab
Scheme
          Pop Quizzes 15% It helps to read the chapter before class.
          1st Exam
                       12% You will need a scientific pocket calculator.
                       12\%   
The Texas Instruments TI-30Xa is a good choice.
          2nd Exam
          3rd Exam
                       12%
          FINAL EXAM 24% Plan on the final exam on 9 Dec, not earlier.
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The 1st lab will be on Tuesday night, 2 September.

Come on the night and time that you have signed up for.

Labs are a required part of the course.

Bring a scientific calculator lab. 11 11 22

Adding exponents (11+11=22). 10 x 10 = 10

stars/galaxy x galaxies = stars in the universe
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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.