AST 307 (46710)
Introductory Astronomy
Fall 2015 MWF 10:00

Professor: John Lacy
Office: RLM 15.310C
Phone: 471-1469
email: lacy@astro.as.utexas.edu
Hours: M-Th 11-12

TA:
Office:
Phone:
email:
Hours:

web: canvas

Text: "The Cosmic Perspective" by Bennett et al., 5th, 6th, or 7th ed. (not a shortened version that leaves out planets or galaxies). Note: this text is designed for non-science majors, so avoids algebra, which we will use, but it has good conceptual explanations, which are important even for science majors.

Prerequisites: No prior college science or math courses are required, but the course is designed for science and engineering majors. We will use high-school algebra and science, especially physics.

Contents: The emphasis in this course will be on physical explanations for the phenomena and objects that occur in the Universe and how astronomers learn about them.

Homework: A homework assignment will be handed out most Fridays, due the next Friday at the beginning of class. Some assignments may involve observations of the sky. You are encouraged to work together on homework, but you must write out your own answers and describe your own observations, in your own words. Duplicate homeworks will not receive credit. Late homeworks will be accepted for half credit until homeworks are returned.

Tests: There will be a quiz most Mondays on the reading for that week and the topics covered the previous week. There will be three in-class exams. Late exams will not be given, but students with an excused absence for an exam will be eligible to take a makeup exam during the final exam period (see below). Exams will emphasize material discussed in class, but may also include topics covered only in the text. All quizzes and exams will be closed-book and closed-notes, and calculators will not be allowed (or needed).

Grades: Grades will be based on homework (25% of the grade), the weekly quizzes (15%), and three exams (60%). Your lowest quiz and homework scores (one of each) will be dropped. During the final exam period, two one-hour comprehensive exams will be given. One will be a makeup exam for students with an excused absence on one of the three in-class exams. The second will be for all students (including those taking the first) and will replace your lowest in-class exam score. If you are satisfied with your scores on the three in-class exams, you do not need to attend the final.

Collaboration: You are encouraged to study and work on homework assignments with other students, and you are encouraged to get help from the professor and TA, but you must write out your own answers and make the assigned observations yourself. If you copy another homework or let someone copy yours, both of you will receive zero credit.

Schedule:

Week of:	Reading:	Topics:	Exams:
Aug 26	Ch 1	Our place in the Universe	
Aug 31	Ch 2+S1	Motions in the sky	
Sep 9	Ch 3	Ptolemy, Copernicus, Tycho & Kepler	
Sep 14	Ch 4	Newton & Gravity	
Sep 21	Ch 5+S4	Light & Matter	Fri, Sep 25
Sep 28	Ch 7+8	Solar system introduction & formation	
Oct 5	Ch 10	Planetary atmospheres	
Oct 12	Ch 13	Other planetary systems	
Oct 19	Ch 14	Sun	
Oct 26	Ch 15	Properties of stars	Fri, Oct 28
Nov 2	Ch 17	Lives of stars	
Nov 9	Ch 18	Deaths of stars	
Nov 16	Ch 19+20	Milky Way and galaxies	
Nov 23	Ch 22	Cosmology	
Nov 30	Ch 23	Big Bang	Fri, Dec 4
Makeup and optional final exams			Thu, Dec 10?