ASTRONOMY 292
Stellar, Galactic, and Extragalactic Astronomy and Astrophysics
Winter Quarter 2006
Mo Tu We Th Fr 12:30pm
McPherson Lab 1005

Instructor: Professor Barbara Ryden
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Textbook: Introductory Astronomy and Astrophysics, by M. Zeilik and S.A. Gregory. In addition, the professor’s lecture notes will be handed out in class.

Web site: www.astronomy.ohio-state.edu/~ryden/ast292.html
(The Web site contains the course syllabus, as well as other useful information. Bookmark it now, before you lose this piece of paper!)

Course objectives and philosophy: This is the second course of the two-quarter introductory sequence which is intended for sophomore astronomy majors, as well as other scientifically literate undergraduates who want to learn basic astronomy from a quantitative perspective.

The specific major topics to be covered in this course are (a) the structure and evolution of stars, (b) the structure and evolution of galaxies (including our own Milky Way Galaxy), and (c) the structure and evolution of the universe as a whole.

To get the most from this course, you should read the book, attend the lectures, and do the problem sets.

Problem sets: Problem sets will be assigned on Wednesday, and will be due the following Wednesday, at the beginning of class. The problem sets will be graded and will count for 25% of your course grade. In general, late work will not be accepted for credit, except with prior approval of the professor.
Review sessions:
Review sessions, run by the T.A., will be held before each midterm and before the final exam. Although there will not be a formal recitation session before each problem set is due, you should always feel free to come to the professor’s office hours.

Examinations:
There will be two closed-book, closed-notes midterm exams, scheduled for Friday, January 27 and Friday, February 24. Each midterm will count for 25% of your course grade. A comprehensive final exam will be given on Wednesday, March 15 at 11:30 am. The final exam will account for 25% of your course grade. For each exam, you will be permitted to bring a single sheet of notes (a standard 8 1/2 by 11 inch sheet of paper – using both sides, if you like).

Make-up Exams:
Make-up exams will be allowed only under extraordinary circumstances, such as severe illness or a death in the immediate family. If you know in advance that you are going to miss an exam (you’ll be out of town for an approved University function, for instance), please contact the professor as soon as possible to make alternate plans for taking the exam.

If you miss the final exam, you will receive a failing grade unless you contact the professor by 5 pm on Friday, March 17, and arrange to take a makeup final at the beginning of Spring Quarter. (In such a case, you would receive a grade of Incomplete until your makeup exam was graded.)

Academic Misconduct:
In the context of this course, you are allowed, and even encouraged, to work with other students on the problem sets. Please note, however, that during midterm exams and the final exam (which together make up 75% of your grade), you will be on your own. Copying during exams will not be tolerated.
BRIEF COURSE SYLLABUS

Midterm Exam Dates: January 27, February 24
FINAL EXAM: Wednesday, March 17, 11:30 am

Week 1: Jan. 3 - Jan. 6: Observed Stellar Properties
Reading: Chapters 11 & 12

Reading: Chapters 13 & 15

Week 3: Jan. 16 - Jan. 20: Star Formation, Stellar Structure & Evolution
Reading: Chapter 16

Week 4: Jan. 23 - Jan. 27: Stellar Remnants
Reading: Chapter 17
REVIEW: Thursday, January 26
EXAM: Friday, January 27

Week 5: Jan. 30 - Feb. 3: Variable Stars, Introduction to Our Galaxy
Reading: Chapters 18, 14, & 19

Week 6: Feb. 6 - Feb. 10: Evolution of Our Galaxy
Reading: Chapters 20 & 21

Week 7: Feb. 13 - Feb. 17: Galaxies Beyond Our Own
Reading: Chapters 22 & 23

Week 8: Feb. 20 - Feb. 24: Active Galaxies and Quasars
Reading: Chapter 24
REVIEW: Thursday, February 23
EXAM: Friday, February 24

Week 9: Feb. 27 - Mar. 3: Cosmology for Beginners
Reading: Chapter 25

Week 10: Mar. 6 - Mar. 10: Advanced Cosmology
Reading: Chapter 26

FINAL EXAM: Wednesday, March 15, 11:30 am, 1005 McPherson Lab