

Astronomy 3332
Course Syllabus

25 January, 2010

Welcome to Astronomy 3332, **Elements of Astrophysics**. In this course, we will survey the astronomy and astrophysics of stars, galaxies, and the Universe. Throughout, we will emphasize how we can apply physics to astronomical objects and how we know what we know.

Lectures: Space Sciences 105, MWF 11:15-12:05

Instructors: Dr. Gregory C. Sloan Dr. Henrik Spoon
Space Sci. 108 Space Sci. 224
sloan@isc.astro.cornell.edu spoon@isc.astro.cornell.edu
255-7504 254-8972

Teaching Assistant: Ms. Shan Huang
Space Sci. 518 (or 523)
shan@astro.cornell.edu
255-6472

Course website: <http://astro3332.astro.cornell.edu/>
Visit this site! It contains a great deal of useful and supplementary information.

Pre-requisites: MATH 1120 or 1220 (Integral Calculus, or equivalent)
MATH 1920 (Multivariable Calculus, or equivalent)
PHYS 2213 or 2217 (Physics II, E&M)

Text: Dan Maoz, *Astrophysics in a Nutshell* (Princeton: Princeton Univ. Press)

Organization:

Unit I	Main-sequence Stars	10 lectures
Unit II	The Death of Stars	11 lectures
Unit III	Galaxies	9 lectures
Unit IV	Cosmology	9 lectures

Grading: Final grades will consist of:

3 Preliminary Exams	45%
1 Final Exam	35%
~10-12 Exercises	20%

Preliminary Exams:

The three preliminary exams will come at the end of Unit I, just after the end of Unit II, and partway through Unit IV. Each exam will count for 15% of the grade. Make-up exams will be offered, reluctantly, only to students who present official university-approved excuses *in advance* of the exam date.

Final Exam:

The final exam will cover the remainder of Unit IV as well as material examined by the preliminary exams. We will post the time, date, and venue once the university schedules it. Students must sit for the final to pass the course.

Exercises:

Approximately 10–12 exercises will be assigned during the semester. The problems and questions posed are designed to reinforce students' understanding of material presented in lecture. Exercises should be submitted at the beginning of lecture on the due date. Late submissions will be penalized 10% per day late, but late exercises cannot be submitted once an assignment has been graded and returned to students.

Attendance:

Attendance in lecture is not mandatory, but students are responsible for all material presented in lecture and in the assigned readings in the textbook. We will provide the presentations projected in class to students, but these are no replacement for notes that students should take in class.

Academic Integrity:

All students should review and follow Cornell University's Code of Academic Integrity. The link to this code can be found on the policies page on the course website. In particular, Section I.B. gives the following examples of violations:

1. Knowingly representing the work of others as one's own.
2. Using, obtaining, or providing unauthorized assistance on examinations, papers, or any other academic work (such as exercises).

While students are encouraged to work and study together, they must never forget that the work they submit must be their own. In other words, discuss the question and how you might answer it, but ensure that your answer is your own.

Violators of the code of academic integrity will be dealt with unsympathetically, receiving no credit for the work in question and, in most cases, being referred to the Academic Integrity Hearing Board.