ASTRONOMY 201
Our Home in the Universe
Fall 2005 – 3 credits
TR 10:10–11:25 Space Sciences 105
http://www.astro.cornell.edu/courses/astro201

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Office Hours
M 10:30-12
Th 2-3:30 or by appt

T.A.      TBD

Course Description

This course is being taught under the John S. Knight Writing in the Majors Program. A general discussion of our relation to the physical universe and a survey of the fundamental issues of modern astrophysics. Three themes will be covered over the course of the semester: (1) the basic properties of our universe and how we come to know about it, (2) an up to date description of topics in modern cosmology and astrophysics, and (3) an excursion into the exciting and exotic: exploding stars, black holes, space travel. The course is designed for non-scientists who are intrigued about astronomy, cosmology and how the universe works and who like to write.

This is not a survey course, students looking for a general introductory astronomy course would likely be better served by Astronomy 101. Students who are more interested in the planets of our own solar system would likely be better served by Astronomy 202, offered in the Spring semester. In this course we will discuss and reflect on aspects of astronomy and write about them. We will skip substantial topics that are core to astronomy. The emphasis in assessment will be on the quality of your analysis and writing. You are expected to do more than learn some factual material in this course. High grades will be reserved for quality intellectual work.

Textbook

The textbook is "Astronomy Today" by Chaisson & McMillan. There will be regular reading assignments from the text, and occasional supplements from outside sources.

Writing Assignments (50%)

This course is being taught under the John S. Knight Writing in the Majors Program. Most assignments will be in the form of writing short papers or essays. The emphasis will be on verbal, not mathematical, description of scientific subjects. No formal writing instruction will be given in class. You are encouraged to make use of the Writing Workshop tutorial service (see http://www.arts.cornell.edu/knight_institute/). Assignments will include three papers, about 1500 words each, and a term paper of up to 3000 words. Even though it is a writing based course, this is not a freshman writing seminar and will not count as such.
Grading Policies

Late assignments are strongly discouraged. Assignments will be due on Thursday in class, and late assignments will be penalized. However, this penalty will be applied as a cap, not as a deduction. For example, the paper is due on Thursday, but you have a pile-up of work and need extra time - you can submit the paper on Monday, but will receive a grade no higher than a B+. If your paper is graded as a B+ or lower, then there is effectively no penalty. The caps will be set as A- on Friday, B+ on Monday, B on Tuesday, C on Friday and D any later. This system is designed to allow for some flexibility to account for the inevitable sick days, clashes etc. It is also intended to encourage you to cut your losses and catch up quickly if you find yourself in this situation. Exceptions will only be considered for circumstances that are substantially disruptive (more than a week of your time as a guide).

Academic Integrity

Appropriate representation of ones own work and intellectual work is central to an academic community. Attached is a copy of the Cornell code of academic integrity which is available at: http://cuinfo.cornell.edu/Academic/AIC.html. You are encouraged to discuss your work as widely as possible, but all submitted work that is not your own must be appropriately acknowledged. There will be a zero tolerance policy for violations of academic integrity. The standard penalty in nearly all cases will be failure in the course. You are required to sign the attached acknowledgment that you have read the Cornell code of academic integrity before any of your work will be graded. You may also be required to submit all papers in electronic form. Note that your papers may as a matter of routine be submitted to outside sources for comparison with databases of papers and open source material.

Research Methods

It is common for students in this course to research material for assignments on web sites. This is encouraged, but students are warned that the quality of material on the web is highly variable. A component of the grading of the writing assignments (10-30% of the individual assignment depending on the quantity of research required for the assignment) will be for the quality of the research methods. Library and book-based scholarly research will receive substantially more reward in this category than web based searching.

Homework (10%)

Reading, research, and/or thinking homework will be assigned roughly on a weekly basis. You will be expected to turn in all homework assignments. Individually, the homeworks will be graded on a all-or-nothing basis. Late homework will recieve no credit. Two homeworks will be dropped without a grade penalty, however extra homeworks (including late submissions) may be considered for extra credit, particularly in cases of borderline grades. There will be no exceptions to this policy.

Mid-Term Exam (10%)

There will be 15 minute oral one-to-one mid-term exams in the week of 24 October. There may also be occasional pop-quizes throughout the semester.
**Journal (20%)**

You will be required to compile a journal that illustrates and documents your wider experience and thinking about astronomy and what you are learning in this class. Suggestions might include: your own observations of the sun, stars and planets; articles from the popular press; wider research on subjects of your interest; thoughts and essays on what you are learning about astronomy. The journal will be turned in twice: October 1 and with the term paper. Note that the journal is due before the mid-term exam, and may serve as the basis for some of the exam questions. Also be aware that past records indicate that weather does not usually permit observations of astronomical objects late in the semester, so start early!

**Participation (10%)**

This class is expected to be interactive, and active participation will be assessed. Attendance may be taken. Note that visits to office hours are considered active participation (so long as the content is not administrative).