☆ ★ ☆ ASTRONOMY 307 ✷

INTRODUCTORY ASTRONOMY

Section/Semester:	Unique No. 50585, Fall 2007
Class Meetings:	Tues & Thur 2:00 – 3:15 PM, RLM 5.104
Instructor:	Prof. Harriet Dinerstein
Contact Info:	471-3449, harriet@astro.as.utexas.edu
Office Hours:	RLM 16.324, Mon 3 – 4 PM and Wed 10:30 – 11:30 AM
Teaching Assistant:	Athena Stacy
Contact Info:	471-8443, minerva@astro.as.utexas.edu
Office Hours:	RLM 16.212, Tues & Thur 10:30 – 11:30 AM
Help Sessions:	Will be scheduled as needed for HWs and exams

Main Course Website:

http://www.as.utexas.edu/astronomy/education/fall07/dinerstein/307.html

COURSE DESCRIPTION: Astronomy 307 is a one-semester introductory survey course on modern astronomy, for science and engineering majors. We will assume that you are comfortable with solving problems and using math as a tool to help you master the course material. *If this statement does not accurately describe you, you should consider switching to Astronomy 301, the introductory course intended for non-science majors.* There are several sections of Ast 301 offered each semester.

Astronomy is a very broad subject to cover in a single semester, so we will be moving through the material at a pretty quick pace. Our goal is to give you an overview of all of astronomy from our Solar System to the Universe on the largest scales. We may not be able to cover your favorite topic in sufficient depth to fully satisfy your curiosity; in that case, you may wish to take one of the Astronomy Department's several follow-up courses (Ast 309 series) in a future semester.

TEXTBOOK: We will use the 8th edition of the textbook "Universe" by Roger Freedman and William Kaufmann. It uses a bit more math than most of the other introductory texts, but also provides you with guidance and hints for doing numerical problems, including worked examples. You are strongly encouraged to buy this (current) edition of the book, since older editions may not contain all the same material and problems. (If you *do* buy an earlier edition, make sure that it isn't one of the abridged versions; these will be missing one of the major units.) The text is also available as an eBook, either with the paper book, or purchased separately at the publisher's website. The auxiliary CD "Starry Night" is mainly included for fun and for help in visualizing the material in the first unit, on the night sky. Other useful resources on the book's website, http://bcs.whfreeman.com/universe8e/default.asp,

include animations, interactive figures, practice problems & quizzes, and so on.
APPROXIMATE SCHEDULE OF TOPICS AND READINGS:

Section I: The Day and Night Sky	ch. 1 – 6	Aug. 30 – Sep. 18
Section II: Our Solar System	ch. 7 – 15	Sep. 20 – Oct. 11
Section III: The Sun and Stars	ch. 16 – 22	Oct. 16 – Nov. 6
Section IV: Galaxies and Cosmology	ch. 23 – 27	Nov. 8 – Nov. 27
Extrasolar Planets & Exobiology (*If time permits)	ch. 8.7 & 28	Nov. 29 – Dec. 4*

A more detailed and updated version of the above list is posted on the class website.

COURSEWORK AND GRADING BASIS: Course grades will be based on individual performance, rather than graded on a curve (no "grade quotas"). You will be able to access your grades via eGradebook. Semester grades will be computed as follows:

Hour Exams: 75%. There will be 3 in-class hour exams spread out over the semester. *They may be given in a different location* than our usual classroom. The format will be announced later, but will include at least some multiple-choice questions, and possibly a few problems. Calculators may be brought to exams; we will provide paper.

*** **Important:** I do not give make-ups for missed hour exams. *If you must miss an exam for any reason, even a justified one,* or are not satisfied with your grade on an exam, ***you must take the comprehensive final exam at the official exam time***. In this case, the grade on the final exam will replace the missed exam, or can replace a lower score on any earlier exam. You do not need to provide a documented excuse in order to take advantage of this option. (However, missing *two* hour exams is another matter entirely; such cases will be considered on an individual basis, and will require very complete documentation in order to receive any further adjustments.)

Exam Dates: Thurs., Sep. 27; Tues., Oct. 30; Thurs., Dec. 6
Comprehensive Final: Sat., Dec. 15, 2 – 5 PM (Note: Cannot be taken early!!)

Graded Homeworks: 15%. There will be approximately 8 graded homeworks throughout the semester. We will drop the two lowest homework scores from the overall HW grade. Generally you will have a week to complete them, and none will be due on exam days. While you may discuss the homework in a general way with classmates, and are encouraged to seek help from the T.A. or instructor if you need it, the work that you turn in must be your own. See below for more on academic integrity.

Class Participation and Extra Credit: 10%. The remaining 10% of your grade will be based on class participation, which includes regular attendance, cooperative behavior in class, and participation in the in-class activities (such as responses via index cards, which will be solicited roughly once per week). These can be supplemented through certain approved outside activities, such as documented

attendance at a Astronomy Department-sponsored Star party or at special relevant lectures that may occur during the semester. However, you can only earn a maximum of 10% credit from the combination of class participation and extra credit.

IMPORTANT DATES THIS SEMESTER (THESE APPLY TO ALL FALL 2007 CLASSES):

First class meeting: Thurs., Aug. 30
Last day of the official add/drop period: Tues., Sep. 4
12th Class Day (Last day to drop with a possible refund): Fri., Sep. 14
Last day to drop a class with an automatic "Q": Wed., Sep. 26
Last day to drop except for *non-academic* reasons: Wed., Oct. 24
(I will grant a Q-drop up until this date, but you will still need approval from your dean's office; after this date it becomes very hard to drop any course.)

INSTRUCTOR POLICIES AND EXPECTATIONS: In order to get your money's worth and do well in this course, it is important that you attend regularly and keep up with the reading and coursework. We will be moving at a fairly rapid pace, and will do our best to keep the class website current, but it is *your* responsibility to stay informed.

Classroom Behavior: I expect you to be attentive in class, and to be respectful of your instructor and classmates. The classroom is not the place for non-class-related social interactions or cell phone conversations. **Please turn off the ringer on your cell phone before the beginning of class.** First time violators will be merely grimaced at, but subsequent cell-phone disruptions will adversely affect your participation grade. In addition, although some instructors allow students to use laptops in class, it will not be allowed in Ast 307, as it is distracting to the instructor and fellow students.

Scholastic Integrity/Academic Dishonesty: The University of Texas at Austin has recently adopted a rather vague "honor code" statement, but it does not spell out expectations for student conduct in any detail. More useful information can be found on the web pages of the Dean of Students, under Student Judicial Services: http://deanofstudents.utexas.edu/sjs/index.php; see especially the links called "The Standard of Academic Integrity" and "Scholastic Dishonesty. The College of Natural Sciences takes these rules seriously. *We will not tolerate copying or cheating on exams, homeworks, or other classwork.* If we find duplicated work or evidence for cheating, neither student will receive credit. We may also impose more severe academic penalties, depending on the circumstances, not excluding an F for the course, or a report of academic dishonesty to the Dean of Students.

GETTING HELP: The Instructor and T.A. have scheduled regular times for office hours (see the top of this syllabus). Please try to bring your questions to us at these times if possible, since we both have other responsibilities in addition to Ast 307 duties, and may not always be available at other times of the week. However, if you cannot attend any of our regular office hours, please contact us and we will try to find an alternate appointment time. The T.A. will hold help sessions shortly before homeworks are due, and before hour exams. You can also contact us with questions by email. However, please check the class website first, to see whether the answer is already posted. We will be posting frequent announcements, updates, and other information there. (I do not encourage students to set up or participate in chat groups or the equivalent that discuss the homework. This has the potential of spreading

misinformation; and giving answers to problems to other students will be considered scholastic dishonesty.)

STUDENTS WITH DISABILITIES: Upon request, the University of Texas at Austin provides appropriate academic adjustments for qualified students with disabilities. Contact the Office of the Dean of Students at 471-6259, or (TTY) 471-4641, or via email to ssd@uts.cc.utexas.edu or see http://deanofstudents.utexas.edu/ssd/ .

SPECIAL EVENTS: The Astronomy Department offers evening Star Parties (viewing through small telescopes) on campus. Star Parties will take place on certain Wednesdays, Fridays, and Saturdays; details will be announced and posted at http://outreach.as.utexas.edu/public/viewing.html. As you may have noted above, it is possible to earn a (small amount of) extra credit by attending one of these star parties; in order to earn this credit you must get a signed slip from the person presiding over the star party. Warning to the naïve: Star parties are held only when the weather permits! They are cancelled when it's too cloudy to see anything, so it is very dangerous to procrastinate and assume that you can wait the end of the semester. If it's cloudy that evening, you will be disappointed – and out of luck!

DEPARTMENTAL INFORMATION: If issues arise during the semester that cannot be resolved with the instructor or TA, you may contact the Chair of the Undergraduate Studies Committee, Prof. Gregory Shields (471-1402 or shields@astro.as.utexas.edu), or the Chairman of the Department of Astronomy, Prof. Neal Evans (471-3302, chairman@astro.as.utexas.edu). More information can be found in a separate document, "Memo to Undergraduate Astronomy Students," handed out in class and also posted at http://outreach.as.utexas.edu/students/memo.html.