Syllabus

Astronomy 1001: Exploring the Universe

Section 3, Fall semester 2007

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Office hours: 14:00--15:00 Tuesday and usually Thursday; or by appointment.
-- Other times are often OK too; just visit my office. Important exception: The hour
before class, 11:45--12:45 TTh, is usually a bad time except for very brief matters.
For routine questions about course material, please ask a TA first (see below).

E-mail: kd@astro.umn.edu. Warning: Don’t rely on e-mail for important or urgent
questions. The inflow rate has become far too large.

Lectures: 12:45--14:00 on Tuesday and Thursday, in room 166 Physics.

TA office hours, in 451 Physics (for routine questions): Hours will be posted on the doors
outside rooms 450 and B49.

Textbook: The Cosmic Perspective by Bennett et al. Fourth edition is best, but earlier
versions are probably almost as good. The lectures will be more important than the
textbook, so try hard to take good notes. In general we’ll cover topics in nearly the
same order as the book -- but this won’t always be possible, because, frankly, this
book is misorganized and confusing as well as overweight. Find the cheapest copy
you can.

Book for the lab exercises: Astronomy 1001 Laboratory Manual 2007-2008, a local
production available in the university bookstore.

Concerning the lab part of this course:

1. Labs are quite separate from the lectures.

2. Get a copy of the Astronomy 1001 Laboratory Manual 2007-2008 at the university
bookstore. Since this book is a local production, most other stores won’t have it.

3. Important: Part of the lab course is an “observational project” concerning the Moon.
Read about it and start observing the Moon as soon as possible! If you fall behind
in this project, there honestly is no way to catch up.
   (During September 4--10 the Moon rises after midnight, and then it'll appear
in the evening sky after about September 12 or 13.)

4. A schedule for lab activities is appended to this syllabus.

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Grading: Officially we use the following recipe for final scores and grades.

- First mid-semester exam … 150 pts.  15%
- Second exam … 180  18%
- Final exam … 290  29%
- 12 labs … 240  24%
- Observational project … 140  14%

However, in effect the exams are even more important than these score-numbers indicate, for a statistical reason that will be mentioned in class.

Grading will be based on a “renormalized curve.” If you’re taking the course S/N, then a grade of ‘S’ will mean “C− or better.”

Exam dates: The final will be given at 13:30--15:30 on Tuesday, December 18; see the university website. Dates for the two mid-semester exams have not been finalized yet but they will most likely be on Thursday October 4 and Tuesday November 6, or at least close to those days. The correct dates will be announced in class about two weeks in advance. In each case the room used for the exam will be announced in class.

Academic standards: The CLA and IT scholastic conduct and classroom procedures will be followed. You are responsible for knowing these, see the university website. Students are welcome to work together, exchange ideas, etc. However, in the labs each student must do his or her own measurements and calculations. Copying someone else’s measurements or calculations amounts to cheating.

Exam procedures: Room assignments for the exams will be announced beforehand in class, usually at least twice. Bring two pencils and a photo ID to each exam! Exams may include multiple-choice, short-answer, and essay questions, but makeup exams will be entirely essay questions. If you miss an exam, see the professor to schedule a makeup. Exam scores will be posted by your course ID# on the web. If you feel there’s a mistake on the multiple-choice part of an exam, please see the secretary in the astronomy department office, 356 physics. Questions about essay questions should be directed to the professor.

Environmental theme: This course satisfies the “environmental theme” specified on the university website. It introduces students to a wide range of topics, including physical principles and not just astronomy. One goal is to show the Earth in a broad context, with a unique perspective on our home planet and its environment in the universe. In this course we’ll see how science views and interprets the physical world around us.
Schedule for reading the textbook: Since this book is rather mixed up, probably the best approach is to begin at the real beginning, chapter 2 on page 26, and aim to finish the book in the first week of December; which means a little more than 50 pages per week. Don’t be alarmed by the welter of jargon and details! -- The lectures will not emphasize stuff like that, and sometimes we’ll be able to ignore parts of the book (as mentioned in class).

Schedule and due dates for the labs:

Sept. 4--7 … no lab meetings
Sept. 10--14 … Lab exercise D
Sept. 17--21 … Exercise A. Also, three Moon observations are due online by 17:00 Sept. 21.
Sept. 24--28 … B
Oct. 1--5 … L
Oct. 8--12 … I
Oct. 15--19 … E
Oct. 22--26 … F. Also, at least six new Moon observations are due online by 17:00 Sept. 26.
Oct. 29 -- Nov. 2 … M, N
Nov. 5--9 … H
Nov. 12--16 … K
Nov. 19--21 … no labs
Nov. 26--30 … J. Also, a total of at least 15 Moon observations and final Moon project are due at 17:00 Nov. 30.
Dec. 3--7 … G, end of lab course