

ASTRONOMY 270, GENERAL ASTRONOMY

Fall 2009

Instructor: Prof. Trish Henning

Course Philosophy *The sulfuric acid clouds of Venus...towering volcanoes of Mars...frozen water on the Jovian moon Europa...spectacular rings of Saturn...planets around other suns...* Studying astronomy takes you to some amazing places. Astronomy 270 (and 271) is designed for people who want to learn about the heavens in more depth than is possible in Astro 101. In the fall semester, we will concentrate on the Solar System. Just as important as learning about the objects in our Universe, we will be investigating **how** we know what we know. Astronomy is a unique science, in that we can't run experiments on astronomical objects (with the exception of the few planetary bodies we, or our probes, have visited). Instead, we have to be clever and use the information we gather with our telescopes on the ground and in space, some basic physics (Phys 151 or higher for this class), and our brains!

Office Hours After class, room 109, Regener Hall (phone 277-5911). Other times by appointment. By far, the best method for contacting me outside of class is email (henning@as.unm.edu). The second choice is by phone to my office (room 31; 277-3166) in the Physics and Astronomy building, which is located on the northeast corner of Lomas and Yale.

Required Text *Universe* (8th ed.) by Roger A. Freedman, and William J. Kaufmann, III.

The Lab (A270L) There is a night laboratory which accompanies this class, where you learn about the night sky, and get your hands on real telescopes. It meets at the Campus Observatory, and is open to everybody in the class. You certainly may take this lecture course without the lab, but if you are an Astrophysics major, the lab is required.

GROUND RULES

- The lectures will be designed on the assumption that you've read the supporting material in the text beforehand. I'll let you know what to read as we go along.
- Your progress will be assessed through two in-class exams (each 25% of the grade. Dates: 24 September and 12 November), homework (20%), and the final exam (30%). The final will be Tuesday, 15 December, 12:30 - 2:30. You may work together on the homework with other classmates - just be sure to write the names of your collaborators on your homework before you hand it in. I encourage you to form study- and work-groups - it's a great way to learn. However, each person must hand in his/her own homework to get credit, and show work for each problem.
- If, for some very valid reason, you need to miss an exam, the make-up will be an **oral exam**. No make-ups will be given unless arranged **before the exam**. No exceptions.