Basic Outline of Reading Covered on Exams (subject to possible slight modification, e.g. if we don't quite finish covering a particular chapter, we may postpone that material to a later exam—I will notify you in class and by email if there are changes, and well in advance of the exams.)

Because of the large number of topics included in "astronomy" and the finite length of the semester, I have decided to omit several chapters that consist of detailed discussions of objects in our solar system (chapters 7-14), and to not discuss the history of astronomy, except in ways that I will make clear in class. We will also omit Ch.28 (extraterrestrial intelligence); take AST 309L (which will be taught in Spring 2006, for example) for a full-semester treatment of this subject.

We need to first develop the background physical principles that will be used to understand observations and theories. This might be the most crucial part of the course, because it may seem dry and difficult, but much of your later success in understanding the material will depend on how comfortable you are with these basic physical concepts. So probably the most important advice for this course is to NOT get behind in the reading and self-testing for the first part of the course, especially chapters 3 and 4 on the topic of light.

Here is a list of the reading assignments for each of the seven exams. I suggest you copy this to a separate sheet and keep it handy. However because we only have about four to five lectures per exam, and there may be unforeseen circumstances, you should consider this list tentative; if the reading schedule is changed slightly, it will be announced prominently in class and by class email. Note that the first five exams are scheduled for Wednesdays.

Exam 1. Chapters **1** (basics), **2** (gravity, orbits,...), **3** (radiation, except we will skip the Doppler effect for exam 2). Also see Appendices 1and 2 at the end of the textbook. Chapter 3 is especially important for later chapters.

In Ch. 1 you will only be tested on sections 1.1, 1.2, 1.7. In Ch. 2 you should read sec. 2.2, 2.3, but really we will be concentrating only on sections 2.5, 2.6, 2.7. We will cover all of Ch. 3 except the section on the Doppler effect.

Date: Wed, Sept. 14 (4 lectures including first class day)

Exam 2. Chapter **3** (only section on Doppler effect), Chapters **4** (spectroscopy) and **5** (telescopes). Chapter 4 is especially important for later chapters, and usually difficult for students.

Date: Wed., Sept. 28 (4 lectures)

Exam 3. Chapters **6** (survey of the solar system), **15** (formation of the solar system), and **16** (the sun).

[Note that we are skipping chaps.7-14 covering details of the solar system.].

Date: Wed., Oct. 12 (5 lectures)

Exam 4. Chapters **17** (properties of stars), **18** (the interstellar gas and dust), and **19** (the birth of stars).

Date: Wed., Oct. 26 (5 lectures)

Exam 5. Chapters **20-22** (stellar evolution and death).

Date: Wed., Nov. 9 (5 lectures)

Exam 6. Chapters **23** (Milky Way galaxy), **24** (other galaxies), **25** (galaxies and dark matter)

Date: Monday, Nov. 21 (4 lectures) [Assuming exam day before Thanksgiving break would result in too many problems.]

Exam 7. Chapters **26** (cosmology) and **27** (the early universe).

Date: Friday, Dec. 9 (last class day; 5 lectures)

I will detail in class and/or in handouts which material you will not be responsible for. This occurs mainly for chapters 1 and 2 (see above); we will read nearly all of the remaining chapters.