

ASTR 101: Descriptive Astronomy

Reading Guide

<http://blackboard.miracosta.edu>*Discovering the Universe* 10e by Comins & Kaufmann

Chapter	Reading Guidelines
1	<ul style="list-style-type: none">▪ Read carefully from the beginning through section 8.▪ Just skim over sections 9 and 10 quickly.▪ Read section 11 carefully.▪ In the last part on “Eclipses” you only need to know the difference between a lunar and a solar eclipse; the details of the various types are not on the test.
2	<ul style="list-style-type: none">▪ Read carefully from the beginning through section 2.▪ Read section 3 but you do not need to know the planetary alignments.▪ Read all the rest of the chapter carefully except you can just skim Toolbox 2-2. (It is actually very important, but we don’t need all the details. The concepts will come up again when we discuss solar system formation in Chapter 5.)
3	<ul style="list-style-type: none">▪ Read carefully from the beginning through section 11.▪ Beginning with section 12, none of that is necessary for the test. It is interesting if you want to learn how telescopes detect non-visible radiation, about the various space telescopes, and forward-looking technologies.
4	<ul style="list-style-type: none">▪ Read all...carefully...except just skim over Toolbox 4-2 (it isn’t on the test).
5	<ul style="list-style-type: none">▪ Pay special attention to the first 10 sections.▪ Beginning with “Exoplanets – Planets Outside Our Solar System” read through to the end but don’t get bogged down in the details; they’re not on the test.
6	<ul style="list-style-type: none">▪ Read only section 7. A better illustration is in the “Supplementary Materials” section of Blackboard.
7 – 9	<ul style="list-style-type: none">▪ No formal reading assignments (no reading questions). These chapters may be useful when completing homework assignments.
10	<ul style="list-style-type: none">▪ Read starting with “The Sun’s Interior” plus sections 7 and 8.▪ Also pay attention to Toolbox 10-1. Key concepts are (1) thermonuclear fusion, (2) hydrogen fusion (or “burning”), and (3) hydrostatic equilibrium.
11	<ul style="list-style-type: none">▪ Read the first nine sections thoroughly.▪ When you get to “Stellar Masses” you should skim over the intro and section 10, read section 11 thoroughly (very important), and then skim through to the end.
12	<ul style="list-style-type: none">▪ Read the beginning through section 2 but don’t get bogged down in details; our coverage of star formation will be very brief.▪ Read sections 3 and 4 more carefully; it’s important.▪ Just skim through section 5 quickly.▪ Pay attention in section 6; this is also important.▪ After section 6 definitely read carefully through section 11: this is the bulk of the material we’re interested in within this chapter.▪ Starting with the part on “Variable Stars” just skim.▪ Do pay attention in section 14 about clusters, especially Figures 12-30 and 12-31; one of your Ranking Tasks covers this material and I’ll talk briefly about it.▪ From section 15 through the end, just briefly look at the bold things and pictures (but we will have to discuss close binaries since they can affect stellar evolution).

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13	<ul style="list-style-type: none">▪ Read carefully from the beginning through section 6.▪ In sections 7 through 9 just skim (SN 1987a is an important example we'll discuss very briefly).▪ In the sections on "Neutron Stars and Pulsars" you only need to read enough to get a <u>general</u> idea of what each is. The details aren't on the test.▪ Just skim section 12 through the end; those details aren't on the test.
14	<ul style="list-style-type: none">▪ No formal reading assignment (no reading questions).
15	<ul style="list-style-type: none">▪ Read all of the chapter carefully except you can just skim over Toolbox 15-1 and section 4 (the galactic center is extremely complicated and the details aren't on the test).
16	<ul style="list-style-type: none">▪ Read all of the beginning through section 8.▪ In section 9 look to see where they define the "Local Group" then skip the rest of that section.▪ Skim section 10.▪ Read sections 11 through 14, Toolbox 16-1, and the Guided Discovery on "The Expanding Universe" (all very important).▪ Skim section 15 but you can skip the Guided Discovery on "The Tully-Fisher Relation..."
17	<ul style="list-style-type: none">▪ No formal reading assignment (no reading questions).
18	<ul style="list-style-type: none">▪ Read all from the beginning through section 5, especially Toolbox 18-1.▪ After section 5, just skim all the way through section 9 (it's important for background and context but the details won't be on the test).▪ Beginning with section 10, read more carefully – it's an important transition in the evolution of the Universe.▪ Give some attention to sections 11 and 12 but don't get tangled up in the details.▪ You should read from section 13 all the way to the end but don't get bogged down in the details. You can skip the Guided Discovery on "Superstring Theory..."
19	<ul style="list-style-type: none">▪ Read all of it but don't get bogged down in the chemistry and biology; these details won't be on the test. Key ideas to note are: the Miller-Urey experiment, the Drake equation, the habitable zone around a star, and the status of the search for extraterrestrial life (how have we been looking? why use the techniques we do? etc.).