New Section of Astronomy 109 (Lab) Available

Section 13: Meets Mondays, 2:00 - 4:40 PM
(Physics-Astronomy Building, Rm. 256)

Avoiding Problems with the Web Site

The textbook website is generally quite stable and problem-free, so long as you always obey the following golden rule.

If you need to leave your computer for any reason while you are in the middle of taking a Reading Quiz, always click the “Exit” button, and then log out of the website.

Please note: please do not even leave your computer while taking a Reading Quiz without first logging completely out, since the textbook website has a “snooze” feature. If you are in the middle of taking a Reading Quiz, and then either (1) leave your computer for more than 2 hours, or (2) log into the textbook website using a different computer or web browser, it will automatically “snooze” your unsubmitted Reading Quiz. This is very bad, so it will not be up to you if you take a quiz. The resulting “snooze” in a few hours will result in a low score since you were not taking it.

Webhosting

So long as you follow the “golden rule” given above, you will have no problems with the website. However, if you do encounter problems (e.g., the website will not let you log in, the quiz is empty, etc), please follow the following procedure:

1. Completely log out of the web site, totally close your web browser, and, if possible, restart your machine.
2. Log back into the website. 9 times out of 10, everything will now work just fine. Just remember the warning.

When in doubt, log out.

5. If all else has failed (i.e., you've followed the golden rule, and have logged out and back in), and things still are not functioning properly, then you may send me your concerns, and I'll see if I can help. Please note, though, that in order to get assistance you must email me before 7 PM on the night the Reading Quiz is due (Reading Quizzes are generally due at 11:55 PM on Tuesday nights).

E-mails received before 7 PM on the night a Reading Quiz is due are guaranteed a response from me by 10 PM that same night (usually much quicker). It is up to you to remember to check your email for any response. If you cannot do so by 7 PM on the night a quiz is due, I can't promise that I will be able to assist you in time for you to complete your quiz. And, please remember that no late quizzes will be accepted. So, to prevent problems, please complete your quizzes before the final deadline.
Overview of Reading Assignment: Prologue and Appendices

- Prologue (sections 7-10): A tour of the Universe --
The Universe of the very large
The Universe of the very small

- Appendices:
  Appendix 4 -- Powers-of-ten notation
e.g.: \[
\frac{1,000,000}{1000} = 1 \times 10^3
\]
  Appendix 5 -- Units (metric system)
e.g.: 1 mile = 1.61 km
Star: A sphere of gas shining under its own power.

Sun rises in the East, and sets in West

Star: A sphere of gas shining under its own power.

Explaining the Sun’s Daily Motion in the Sky

Two choices:
1) The Sun revolves once per day around the Earth.
2) Earth spins once per day about an axis of rotation.

Which is right?
Star: A sphere of gas shining under its own power.

Celestial Sphere: Imaginary sphere centered on the center of the Earth to which it appears the stars are affixed.

Conceptual Scheme: A model used to explain observations.
Understanding the Celestial Sphere

Standing at the North pole:
- North star is always at zenith (elevation=90°).
- All stars are circumpolar: don’t rise or set, just circle once per day around North celestial pole.

Standing at the equator:
- North star is always on northern horizon (elevation=0°).
- NO stars are circumpolar: they all rise in the east and set in the west 12 hours later.

Standing at 30° north latitude (San Diego):
- North star is always located 30° above northern horizon (elevation = 30°).
- Stars within 30° of north star are circumpolar; other stars rise and set at an angle to the horizon.

Wherever you are in Northern hemisphere, the North Star’s elevation is equal to your latitude.

Circumpolar stars: Stars that never rise nor set, but just circle around a celestial pole, above the horizon at all times.