Announcements

- **My office hours.** As discussed last week, my office hours are Friday 2:30 PM – 4:30 PM, Rm. P238 (physics building). I strongly encourage you to use these. Remember, no appointments are needed, and everyone is welcome; if students are already in my office when you arrive, please come right in and join in!

- **Astronomy Help Room hours.** In addition to my office hours, there are lots of opportunities to get individual assistance with the course material. The Astronomy Help Room (Rm. 215, Physics-Astronomy building) is staffed 14 hours each week by graduate teaching associates for just this purpose. No appointment is needed, just stop by. The hours for general help are:

  Monday: 12 – 2 PM; 5 – 6 PM
  Tuesday: 12 – 2 PM
  Wednesday: 12 – 2 PM
  Thursday: 12 – 2 PM; 5 – 6 PM
  Friday: 10 AM – 1 PM; 2 - 3 PM

  → Meeting with any of the teaching associates will be helpful. Note, though, that the two teaching associates who are specifically associated with your section of Astronomy 101 are in the Astronomy Help Room at the following times:

  Alex Burke: Tuesday 1 – 2 PM and Friday 2 – 3 PM
  Tina Güth: Monday 12 – 1 PM and Friday 11 AM – 12 PM

  Since Alex and Tina are part of your course (and will have attended the lectures), they will likely be able to provide more specific guidance than the other teaching associates, so definitely seek them out. But, you are of course encouraged to go to the Help Room whenever it is convenient for you!

- **On-line Course Material:** Last Thursday, you were introduced to the “on-line” component of this course, which will contain the weekly Reading Quizzes as well as helpful “tutorial” material. All of the instructions for registering and using this required resource are contained in the handout, On-Line Homework and Weekly Reading Quizzes that was given out in class; it is also available at the Course Web Site:

    http://sciences.sdsu.edu/~leonard/astro101

Please see this handout for instructions on how to register, if you have not done so already.

- **Planetarium shows:** Having trouble visualizing the celestial sphere? Help has arrived. The astronomy department is providing special shows this week and next in its planetarium, Rm. PA 209 (physics-astronomy building). While it is not required that you attend a show, I strongly encourage you to take advantage of this opportunity to enhance your understanding of the night sky. Shows will last about 1 hour, and are being given at the following times (all shows are similar):

  Thursday, September 11 : 2:00 PM
  Friday, September 12 : 12:00 PM
  Monday, September 15 : 10:00 AM and 2:00 PM
  Tuesday, September 16 : 11:00 AM
  Wednesday, September 17 : 11:00 AM and 12:00 PM
  Thursday, September 18 : 11:00 AM
  Friday, September 19 : 11:00 AM

  Since the planetarium can only accommodate 52 students, to attend a show you must first sign up on the sheets posted on the door to the planetarium (Rm. PA 209). On the sheets, indicate the show time that you would like to attend, as well as your instructor for astronomy 101 (Leonard!). At the show,
roll will be taken to confirm your attendance, and I will be given the list of names of the students that have attended. While there is no formal “extra credit” given in this class, attending this activity is certainly one of those extra indicators of effort and interest that I may take into consideration when deciding whether to bump up a borderline grade at semester’s end (see the Course Syllabus for more details on this). The shows are also quite entertaining and informative!

Reading Guide and Homework Assignment
(Week #2 On-Line Reading Quiz Due: Tuesday, September 16, 11:55 PM)

This week, we continue reading from Chapter 1, and also introduce the on-line component of the course. As you read this material, be sure to keep your attention focused on the big picture of what is being presented, and not allow yourself to get mired in the details. For instance, you do not need to know the names of the constellations that are on the ecliptic, but you do need to know what the ecliptic is! Achieving a good mental picture of the celestial sphere can be challenging; it’s the kind of thing, though, that once you figure out what’s going on, everything just falls into place. Working with an actual physical model of the celestial sphere (like we did in class) can help greatly, so I encourage you to stop by my office hours and/or visit the TA help room to work with them. Other key areas to make sure you understand from this reading include Eratosthenes’ measurement of the Earth’s size and how retrograde motion is explained in the heliocentric model of the solar system. We covered much of this in class, but the book works it out in more detail in some areas.

1. Register for access to the on-line textbook website by following the instructions detailed in the handout: On-Line Homework and Weekly Reading Quizzes, given out in class last week (and available at the course web-site).

2. Course Reader: Pages 159 — 162: A Mathematical Toolkit – Please read the section on Geometry (on p. 159) before Thursday’s class (i.e., Sept. 11) this week!

Wondering about the math that will be used in this course? Then this Toolkit is for you. This section of the Reader reviews the basic mathematical concepts and skills that you will be expected to know and have for this class. Please read it thoroughly and work through all of the examples. The section entitled “Working with Ratios” (begins on p. 160) is of particular importance, so be extra sure to spend time with it. While most of the material in here should be review, it may have been a while since you last exercised the mathematical part of your brain, so spend some time with it. Mastering this material now will save you a lot of headaches down the line. Note that we shall not spend much class time reviewing this material, so if you do experience difficulty, please see me during office hours, or the TAs during help-room hours, for assistance. Remember: now is the time to get help with the mathematical component of this class.


Throughout the course we shall be referring to astronomical information portrayed in graphical form; it is thus essential that you understand how information is presented in this manner, and this section provides a brief review.


Final practice dealing with scientific notation, working with units, the metric system, and finding ratios.

5. Text — Chapter 1, Sections 1.1.3, 1.1.4, and 1.1.5: Rising and Setting of the Sun, Fixed and Wandering Stars, and Constellations.

These sections describe the basic motions of the sun and planets on the celestial sphere, material covered thoroughly in class as well.

6. On-line tutorial: On the “Week2 tutorial” section of the textbook website, work your way through the Active Figures entitled: “Celestial Sphere”, “Daily Motion in the Sky”, “Constellations from Different Latitudes”, and “Constellations in Different Seasons”. For the last two Active Figures, focus mainly on the concepts being described; you do not need to memorize the constellations themselves, of course.
7. Text – Chapter 1, Sections 1.2.1, 1.2.2, 1.2.3, and 1.2.5: Astronomy Around the World, Early Greek and Roman Cosmology, Measurement of the Earth by Eratosthenes, and Ptolemy’s Model of the Solar System.

These sections cover astronomy in ancient times, and proceed in a slightly different order from what we did in lecture. Be sure you understand Eratosthenes’ method for figuring out Earth’s size (see also the on-line tutorial assignment, below); quite incredible that this was done in 200 B.C., no?

8. On-line tutorial: On the “Week2_tutorial” section of the textbook website, work through the Active Figures called “Eratosthenes’ Experiment” and “Epicycles”.

9. On-line reading quiz (Due: 11:55 PM, Tuesday, September 16): Take this week’s reading quiz by clicking on the “Week2_quiz” assignment at the on-line textbook web-site. It consists of 10 multiple choice questions. As explained in the handout (On-Line Homework and Weekly Reading Quizzes), after you have taken the quiz once, you will see which questions you answered incorrectly; you then have the opportunity to take the quiz a second time at any point before the due date, and attempt to correct any/all of your mistakes. Your best, final score is what counts as your homework grade for the week. Please see the section below, Getting the Most out of the Weekly Reading Quiz, for advice on how to best prepare for, and take, the quiz. You must complete this on-line quiz by 11:55 PM Tuesday, September 16.

Special Note: If you encounter any difficulty with the textbook web-site, please carefully review, and follow the instructions on, page 6 of the handout (On-Line Homework and Weekly Reading Quizzes); i.e., the section entitled “Avoiding Problems with the Web Site”. In the event that you require my assistance, please note that you must email me by 7 PM Tuesday, September 16 to be guaranteed a response before the quiz comes due (I will respond by 10 PM).

Getting the Most out of the Weekly Reading Quiz

Please remember that these quizzes are designed to prepare you for exams. While the quiz is open book and open notes, and you may even consult with friends, I believe the absolute best way to use these quizzes to your advantage is to follow these steps:

(a) Come to lecture and do all of the assigned reading.

(b) Study all of the material that was covered as best you can.

(c) Print out a copy of the Reading Quiz, from the textbook web-site.

(d) Take the Reading Quiz first on paper, and circle any questions whose answer you are unsure of. (Note: You will not be turning this paper in; all graded work for the Reading Quiz is done online.)

(e) Determine the correct answer to any difficult questions by reviewing your class notes or rereading the textbook or Reader sections that were assigned. You may also seek assistance from me during my office hours, or from the TAs during the astronomy help-room hours.

(f) Make a note of how many questions you answered correctly without any assistance; this gives you a rough indication of how well you had studied the material for the week on your own. Are you satisfied with this grade (consult the grading chart on page 5 of the syllabus, if necessary)?

(g) Take the Reading Quiz online at the textbook website.

(h) Retake the Reading Quiz a second time, if necessary.

(i) Review the solutions to the Reading Quiz, which become available at the textbook website 10 minutes after the quiz is due (e.g., 12:05 AM Wed., September 17), and are posted to the course web-site within a few days. Even if you got a 100% on the quiz, the solutions are still very useful to review, as they may contain extra information of importance.

(j) Get help if there are any questions that you have with the Reading Quiz, or any of the material presented during the past week by visiting either my office hours or the TA help room hours.
(Isaac Newton (L) and Archangelo Corelli (R), c. 1690.)