

Physics 195 2013 Assignments

Below are the assignments for Dr. Bruce Betts' 2013 Physics 195: Introduction to Planetary Science and Astronomy class (<http://planetary.org/bettsclass>) at California State University Dominguez Hills (CSUDH). These are provided for those not enrolled in the class in case they want to see them. They are organized into the online introduction assignment, written assignments, and discussion board assignments. Reading assignments can be found in a separate document at <http://planetary.org/bettsclass>

NOTE: if you are enrolled in the class, do not use this document, instead use the online CSUDH Blackboard system that will allow you to submit your assignments as described on the Blackboard system.

ONLINE INTRODUCTION IN THE BLACKBOARD SYSTEM

Click on **Create Blog Entry** [in the Blackboard system, not available here] and tell us something about your 1) personality, 2) family, 3) school, 4) town, 5) goals and 6) interest in astronomy.

This assignment is worth 3 points or 3% of your grade. For full credit comment on each of the 6 topics and attach a picture of yourself.

WRITTEN ASSIGNMENTS

Planetary Radio (5 points)

Due Feb. 26

Listen to any episode of the half hour radio show Planetary Radio (<http://planetary.org/radio>).

Note there are extensive archives and you can choose an episode of particular interest to you.

Write a brief paper (**no less than 200 words, no more than 300 words**) that summarizes what you heard and what was of most interest to you. Include some of your own thoughts, opinions, and/or reflections.

Random Space Facts (5 points)

Due March 26

Come up with 5 random space facts or trivia questions (and answers) or a combination of both. They can be from any topic related to space. They should be things that you find interesting and that others might as well. At least one of the five should be based upon information you found somewhere other than in lectures or our textbook. The other 4 can come from any source. You should give your source for each of the 5, whether a book, a lecture, a TV show, a web site, or a magazine.

Night Sky Observations (10 points)

Due April 23

Observations of the night sky. Complete the following. **START EARLY!** Do not wait to start making your observations. Cloudiness will not be accepted as an excuse.

- Observe at least 3 planets in the night sky with your naked eye. You do not need to observe them all on the same night, but you may. Find out where to look from the last few minutes of the most recent Planetary Radio <http://planetary.org/radio> , or from any number of web sites or magazines, e.g., www.skyandtelescope.com .
- Observe a fly over of the International Space Station. You will need to register for an account at <http://www.heavens-above.com/> as described in the second lecture, or find an alternate web site.
- Observe a fly over of any other satellite (e.g., Hubble Space Telescope) or space “junk” (e.g., a rocket body). Again, you can use www.heavens-above.com to predict when and where to look.

That is a total of **FIVE observations**; 3 planets, the space station and another satellite

For EACH of these observations, list:

- the object observed
- where you were when you observed it (city, state)
- when you observed it (date and time)
- how bright the object was compared to other objects you observed
- additional descriptive comments about what you saw.

That is a total of **FIVE comments** for each observation. Record all of your observations in a single report.

Questions (5 points)

Due April 30

Come up with 5 possible test questions for the final. Each question should include at least a question, an answer, and a source (e.g., lecture 5 or Lang, page 20). The questions can be any format, but must include the answer. At least 2 of the five should be based upon material from the book. The others can be from the lecture. The final will be based on Lecture 7 (Jupiter system) through the end of class, so pull your questions from those lectures and the related readings.

DISCUSSION BOARD TOPICS

(Note: still adding to these as the course goes along)

The Asteroid Threat

Assigned 2/20/13

Though asteroid impacts and even close approaches to Earth happen only rarely, we had a vivid reminder on Feb. 15, 2013 that the threat is real, with both the impact of a 15 meter asteroid over Russia that broke windows and did other damage and injured more than 1000 people, and the close flyby of the 45 meter asteroid 2012 DA14. Create a new thread of at least 50 words that tells us some of the following: what we should do to counter this threat, or if we should do anything at all, and why? Is doing something about the asteroid threat important or not, what types of things should be done if anything? How does this type of natural disaster compare to other natural disasters? (2 points total) Reply to another student's thread with at least 30 words (1 point).