Syllabus for Astronomy: Spring 2006

Course Information

Location: 101 Bayer Learning Center
Meeting times: 1:00-1:50 pm, Monday, Wednesday, and Friday
Text: Cosmic Perspective (Part 1) by Bennett, Donahue, Schneider, and Voit
Instructor: Jon Gaffney
Contact Info: Office: Bayer 215
            Email: gaffneyj@duq.edu
            Homepage: http://www.phyast.pitt.edu/~jgaffney/
            Office Hours: 2-3:30 pm Mon. and Wed., or by request

Course Description and Objectives

This is a one-semester elective science course focusing on Astronomical phenomena. Due to its nature as a survey course, I hope that we will be able to delve into some discussions about various items that are interesting and/or important to all of us. Specifically, in this class we will discuss:

• Earth-Moon-Sun dynamics in great detail
• The Copernican Revolution and Kepler’s Laws
• Newton’s Laws and Conservation Laws
• Earth as a Planetary, Living System
• The Planets and Solar System
• Light: Emission Spectra and Doppler Effect
• The Sun
• Time permitting: other stars, the stellar wasteland, and galaxies

Additionally, we have a number of (often Friday) class meetings scheduled for videos and/or discussions about relevant topics. I will solicit feedback as to what discussions might be interesting to others. Some examples are:

• SETI and the search for Extra-terrestrials
• Colonization dreams or realities
• Government funding of programs (returning to the moon, landing on Mars, Hubble, etc)
• Comets, the probe that exploded one last year, the dinosaurs, our impending doom (?), etc.
• How realistic is “Star-Trek”-type space flight?

My Expectations

• I expect your punctual attendance at every class meeting. You will be held responsible for this in many ways. Missed quizzes (if and when we have them) and participation grades may not be made up. Late homework is accepted with a 20% penalty each school day. If you miss an exam, you must give me 24 hours’ notice beforehand before your case will be considered.
• I expect you to read the assigned sections before class. It will make the discussions more lively and the course run more smoothly.
• I expect you to visit the website and perform the assigned tutorials sometime in the week following when they are due. They will help your understanding significantly and might raise some good questions.
• I expect you to sit in groups every day. Sometimes, a row format will be more beneficial for the specific class, but if that’s the case you will know ahead of time. The default is that we will sit in groups as the setup was on day 1.
• I expect you to participate during our class meetings. Teaching as telling is a failed premise – it simply doesn’t happen. If you are to gain anything from this class, you must engage with your mind. Moreover, you bring valuable experiences that you can share with your peers to help construct new and worthwhile knowledge among yourselves.
• I expect you to co-operate with your peers. There is no curve in this course. This means that you should feel free to set up review sessions outside of class, or work on homework as a group. This does NOT mean copying each other’s answers. That is CHEATING and will result in a zero grade for everyone involved.
• I expect you to respect each other and me. I will respect you, also.
• I expect to be wrong on occasion. I am awesome, but even I make mistakes. If I say or write something that you think is wrong, challenge me. If I am wrong, I will admit it (eventually). I might not be able to answer all questions asked of me immediately; if you stump me I’ll get back to you the next class day.

Course Grading

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<tr>
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<th>Points</th>
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<tbody>
<tr>
<td>Attendance &amp; Participation</td>
<td>50 (10%)</td>
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<tr>
<td>Homework (11, 10 pts each)</td>
<td>100 (20%)</td>
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<tr>
<td>Mini-Projects (Moon, Planetarium,...)</td>
<td>50 (10%)</td>
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<tr>
<td>Exams (3, 100 pts each)</td>
<td>300 (60%)</td>
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500 (100%)

Note, there are 110 total possible points in homework. Anything over 100 is bonus. The final grade will be determined from the following scale:

90% and above, A-type
78% - 90%, B-type
65% - 78%, C-type
50% - 65%, D-type

Disabilities

If you have a disability that requires special testing accommodations or other classroom modifications, you need to notify both the instructor and the Disability Resources and Services no later than the 2nd week of the term. You may be asked to provide documentation of your disability to determine the appropriateness of accommodations.