Physics 106
Astronomy
Fall, 2012

Prerequisites: MAT130, or a working knowledge of algebra

Instructor: Charles Benesh

Phone: x5265

e-mail: cbenesh@wesleyancollege.edu

Web: http://www.wesleyancollege.edu/~cbenesh

Office Hours: M 1:30-2:30 Tu&Th 9:45-11 W 10-11 F 4:30-5:30

Grading:
40% - 4 Exams
20% - Final Exam
20% - Weekly Homework and Quizzes
20% - Weekly Laboratory


• Lecture Attendance: Regular attendance in class is both expected and recommended. Generally, quizzes are only given when attendance falls below 80%. Therefore, the day you don’t show up is more likely to have a quiz.....

• Quizzes: I reserve the right to give unannounced in class quizzes which will count towards the homework portion of your grade. No makeup quizzes will be given.

• Homework: Each week there will be a homework assignment. Assignments are posted on the course web page and on the MasteringAstronomy website. You will be sent a reminder via email on Friday (usually) when a
new assignment is posted. In most instances, the assignment will be due on Tuesday (11 days later.)

On a few occasions there may be additional online activities assigned.

- **Laboratory:** There will be a total of eleven labs for this course. With two exceptions, each week’s lab will be conducted in two parts, during the second "half" of class. In order to complete the lab, *you must be present on Tuesday when the lab begins. Students will not be allowed to begin the lab on Thursday. There will be no opportunity to makeup missed labs.* Lab reports are due on Thursday one week after completion of the lab.

On one occasion we will go out to the roof of Munroe and observe the sky using the College’s small telescopes. You may be required to stay later than usual to complete this activity.

You are also be required to take a "field trip" up the street to the [Museum of Arts and Sciences](#) to see the planetarium and telescopes they have there.
# Class Schedule - Physics 106

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
</table>
| Aug 23 | The Birth of Astronomy - NO LAB  
**READ**: Chapter 1 |
| 28 | Getting Around the Sky - Celestial Coordinates  
| 30 | Phases and Eclipses, Parallax  
Lab 1: Planetarium Visit  
**READ**: Chapter 1 |
| Sep 4 | Geocentrism vs. Helio-Centrism  
Lab 2a: Celestial Sphere  
| 6 | Galileo, Kepler, and Newton  
Lab 2b: Celestial Sphere  
**READ**: Chapter 2 |
| Sep 11 | Newton II  
Lab 3a: Parallax  
| 13 | Light  
Lab 3b: Parallax  
**READ**: Chapter 3 |
| Sep 18 | Interference and Diffraction  
Lab 4a: Celestial Scavenger Hunt (Backup Date)  
| 20 | Exam I - Chapters 1-3  
Lab 4b: Celestial Scavenger Hunt (Backup Date)  
**READ**: Chapter 4 |
| Sep 25 | Black-Body Radiation  
Lab 5a: Newton’s Laws  
| 27 | Telescopes  
Lab 5b: Newton’s Laws  
**READ**: Chapter 5 |
| Oct 2 | Atomic Spectroscopy I  
Lab 6a: Light and Waves  
| 4 | Atomic Spectroscopy II  
Lab 6b: Light and Waves  
**READ**: Chapters 4 & 5 |
<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
</tr>
</thead>
</table>
| Oct 9 | Fall Break  
         NO LAB  
         Exam II  
         Lab 4b: Celestial Scavenger Hunt (Backup Date)  
**READ:** Chapters 4 & 5 |
| Oct 11 | The Solar System I - The Regular Cast  
         Lab 7a: Optics |
| Oct 16 | The Solar System II - Guest Stars  
         Lab 7b: Optics  
         Read Chapter 5 & 6 |
| Oct 23 | Earth I  
         Lab 8a: Online Lab Activity  
         TBA |
| Oct 25 | Earth II  
         Lab 8a: Online Lab Activity  
**READ:** Chapter 7 |
| Oct 30 | Earth II  
         Lab 9a: Sizing Things Up |
| Nov 1  | Mercury  
         Lab 9b: Sizing Things Up  
**READ:** Chapter 8 |
| Nov 6  | Venus  
         Lab 10a: Rotation of Mercury  
         Mars & Extra-Terrestrial Life  
         Lab 10b: Rotation of Mercury  
**READ:** Chapters 9 & 10 |
| Nov 13 | Jupiter - The Big One  
         Lab 4a: Celestial Scavenger Hunt (Backup Date)  
         Exam III  
         Lab 4b: Celestial Scavenger Hunt (Backup Date)  
**READ:** Chapters 11 & 12 |
<p>| Nov 20 | Saturn |</p>
<table>
<thead>
<tr>
<th>Date</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov 22</td>
<td>NO LAB</td>
</tr>
<tr>
<td></td>
<td>NO CLASS</td>
</tr>
<tr>
<td></td>
<td>NO LAB</td>
</tr>
<tr>
<td>Nov 27</td>
<td>Uranus, Neptune, and Pluto</td>
</tr>
<tr>
<td></td>
<td>Lab 11a: Moons of Jupiter</td>
</tr>
<tr>
<td>Nov 29</td>
<td>The Sun’s Surface</td>
</tr>
<tr>
<td></td>
<td>Lab 11b: Moons of Jupiter</td>
</tr>
<tr>
<td></td>
<td><strong>READ</strong>: Chapter 13 &amp; 16</td>
</tr>
<tr>
<td>Dec 4</td>
<td>The Sun’s Interior - NO LAB</td>
</tr>
<tr>
<td></td>
<td><strong>READ</strong>: Chapter 16</td>
</tr>
<tr>
<td>Dec 11</td>
<td>Final Exam - 5:30 PM</td>
</tr>
</tbody>
</table>