Syllabus for Astro 101 Lab Section 412

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You can find links to WebAssign and other important sites for our labs on my website.  

**Classroom:**  Chapman 235  
**Meet:**  7-8:50 pm Tuesday nights

**Goals for Course:**  These Labs are New! The astronomy 101 labs have been completely redone since last year. The course is almost entirely computer based and does not require full lab reports as in years past. We are also no longer at the mercy of Chapel Hill weather to do our labs. The labs are now designed to follow closely along with the Astronomy 101 course, a major improvement over the old labs. We will be using state of the art telescopes located in Chile.  
http://skynet.unc.edu/  
(The link is also posted on my website)

The goals of these labs are to teach key concepts learned in Astro101/102 lectures.

- Our place in the Universe
  - Earth’s place in the Solar System
  - The Solar System’s place in the Milky Way
  - The Milky Way’s place in the Universe
- Distance Indicators (ie., How big is the Universe?)
  - Parallax – measure things nearby to the Solar System
  - Standard Candles – measure objects outside our Galaxy
  - Hubble’s Law – how this affects our measurements
- Correct common misconceptions

**Lab Reports:** Labs are due before the following lab period (usually one week after the lab is done). We are now using WebAssign for the assignments, and labs will consist of the following:

- Answering questions asked in the lab
- Graphs and Images uploaded to WebAssign
- Discussion of results and errors

There will also be a short quiz at the beginning of each lab that will be based on the lab reading.

**WebAssign:** The link for registering is:
http://www.webassign.net  
Once you are there select "I have a Class Key", and follow the instructions. Our class key is: unc 8042 5234. You have until September 7 at 12:00 AM to pay for your account, which you can do online after you log in. The cost should be $19.95. (The link is also posted at my website)
**Grading:** Each lab will count as 10% of your final lab grade. There are nine labs total, so the last 10% will come from the pre-lab quizzes.

Grading will be done on a curve, which means we will calculate the mean and standard deviation of the lab grades each week. The number of standard deviations your grade is away from the mean will determine your overall letter grade. Roughly:

<table>
<thead>
<tr>
<th>number of standard deviations from mean</th>
<th>Grade</th>
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<tbody>
<tr>
<td>&gt; 0.5</td>
<td>A</td>
</tr>
<tr>
<td>-0.5 to 0.5</td>
<td>B</td>
</tr>
<tr>
<td>-1.5 to -0.5</td>
<td>C</td>
</tr>
<tr>
<td>-2.5 to -1.5</td>
<td>D</td>
</tr>
<tr>
<td>&lt; -2.5</td>
<td>F</td>
</tr>
</tbody>
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**Policy on Late Labs:** Don’t be late: 10 points will be taken off for each day after the assignment was due.

Sept 1  – Lab Orientation  
Sept 8  – No Lab (Labor Day)  
Sept 15 – Lab 1 *Introduction to SKYNET* (first part)  
Sept 22 -- Lab 1 *Introduction to SKYNET* (second part)  
Sept 29 -- Lab 2 *Earth and Seasons* (first part)  
Oct  6  -- Lab 2 *Earth and Seasons* (second part)  
Oct 13 -- Lab 3 *The Galilean Revolution*  
Oct 20 -- No Lab (fall break)  
Oct 27 -- Lab 4 *Parallax* (first part)  
Nov  3  – Lab 4 *Parallax* (second part)  
Nov 10 – Lab 5 *Standard Candles*  
Nov 17 – Lab 6 *Great Debate*  
Nov 24 – No Lab (Thanksgiving)  
Dec  1  – Lab 7 *Hubble Law*

**What to Bring to Class:**  
Laptop Computer  
Copy of Lab  
Pen/Pencil