

ASTR 110 (lab)

Survey of the Universe

Mount Holyoke College – Spring 2010

Meeting Times:

(LAB) **Observatory Th 1:00p – 4:00p**

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|--|---|---|
| Instructor: Rob Salgado Visiting Assistant Professor of Physics Office: Kendade 215 Voice: (413)-538-2816 | Email (the best way to contact me): rsalgado@mtholyoke.edu Instant-Messengers: AOL, WindowsLive[hotmail], Yahoo, Skype: mhcphyrob (do <i>not</i> email here) | Office hours: -M 3:00-4:30pm -Th4:00-5:00pm |
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TAs: **Molly Williams** (willi29m@mtholyoke.edu) and **Gloria Coon** (coon20g@mtholyoke.edu) will helping out during lab.

Electronic Materials:

I will maintain a website (<http://www.mtholyoke.edu/courses/rsalgado/110/>) that links to notes and handouts, as well as to an ELLA website where lab scores are recorded.

Course Goals:

- A. To elaborate on some Physical and Mathematical concepts introduced the Astronomy lectures.
- B. To further develop physical intuition, mathematical reasoning, and problem solving skills.

Course Requirements:

Attendance and participation is **REQUIRED**.

Grades are roughly weighted as follows:

Lab scores will be maintained on **ella**. Please check it regularly.

You are encouraged to work with other students on the various lab activities.

To get credit for participation in the lab, you must submit your own completed lab worksheet. There are no make-ups.

The three-lowest-scoring lab activities will be dropped from the final score. One excused absence [sent to me by email] will be allowed. Further absences for whatever reason will earn a zero (and may be counted among the three-lowest-scoring labs).

| <p>The concepts we plan to discuss fall into broad themes: light, gravitation, relativity (and black holes). Specific topics in these themes will be announced during the course. (The topics for our Thursday lab are inspired by the ASTR 100/101/110 lectures earlier in the week.)</p> <p>The skills we plan to develop include: functional relationships (<i>i.e. interpreting formulas</i>), scaling and geometric reasoning, and introductory computational modeling. Any physics or mathematics that is needed will be introduced in the lab activity.</p> <p>Since this is a new course, new course materials are being developed as the semester progresses. So, there are likely to be some rough edges in the activities we will do. This is taken into account in how grades are determined for lab. So, don't worry too much about it. Just focus on learning the concepts and have some fun!</p> | <table style="margin: auto; border-collapse: collapse;"> <thead> <tr> <th>Mo</th> <th>Tu</th> <th>We</th> <th>Th</th> <th>Fr</th> <th></th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>27</td> <td>28</td> <td>29</td> <td>JAN</td> </tr> <tr> <td></td> <td>1</td> <td>3</td> <td>4</td> <td>5</td> <td>FEB</td> </tr> <tr> <td></td> <td>8</td> <td>10</td> <td>11</td> <td>12</td> <td></td> </tr> <tr> <td></td> <td style="border: 1px solid black;">15</td> <td style="border: 1px solid black;">17</td> <td style="border: 1px solid black;">18</td> <td>19</td> <td></td> </tr> <tr> <td></td> <td>22</td> <td>24</td> <td>25</td> <td>26</td> <td></td> </tr> <tr> <td></td> <td>1</td> <td>3</td> <td>4</td> <td>5</td> <td>MAR</td> </tr> <tr> <td></td> <td>8</td> <td>10</td> <td>11</td> <td>12</td> <td></td> </tr> <tr> <td></td> <td>15</td> <td>-</td> <td>-</td> <td>-</td> <td>19</td> </tr> <tr> <td></td> <td>22</td> <td>24</td> <td>25</td> <td>26</td> <td></td> </tr> <tr> <td></td> <td>29</td> <td>31</td> <td>1</td> <td>2</td> <td>APR</td> </tr> <tr> <td></td> <td>5</td> <td>7</td> <td>8</td> <td>9</td> <td></td> </tr> <tr> <td></td> <td>12</td> <td>14</td> <td>15</td> <td>16</td> <td></td> </tr> <tr> <td></td> <td>19</td> <td>21</td> <td>22</td> <td>23</td> <td></td> </tr> <tr> <td></td> <td>26</td> <td>28</td> <td>29</td> <td>30</td> <td></td> </tr> <tr> <td></td> <td>3</td> <td>5</td> <td></td> <td></td> <td>MAY</td> </tr> <tr> <td></td> <td>[9 10</td> <td>11</td> <td>12</td> <td>13]</td> <td></td> </tr> </tbody> </table> | Mo | Tu | We | Th | Fr | | | | 27 | 28 | 29 | JAN | | 1 | 3 | 4 | 5 | FEB | | 8 | 10 | 11 | 12 | | | 15 | 17 | 18 | 19 | | | 22 | 24 | 25 | 26 | | | 1 | 3 | 4 | 5 | MAR | | 8 | 10 | 11 | 12 | | | 15 | - | - | - | 19 | | 22 | 24 | 25 | 26 | | | 29 | 31 | 1 | 2 | APR | | 5 | 7 | 8 | 9 | | | 12 | 14 | 15 | 16 | | | 19 | 21 | 22 | 23 | | | 26 | 28 | 29 | 30 | | | 3 | 5 | | | MAY | | [9 10 | 11 | 12 | 13] | | <p>I am away.</p> |
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