INTRODUCTION TO STELLAR ASTROPHYSICS

INSTRUCTOR: Dr. Bruce J. Hrivnak
OFFICE: NSC 140
PHONE: 464-5379

CLASS TIMES: T, R 9:45-11:00 am in NSC 119
OFFICE HOURS: M 1:00-2:00, F 2:00-3:00, COURSE WEB SITE: www.physics.valpo.edu/courses/a252
REVIEW: T 5:30-6:30 and/or R 4:00-5:00 in NSC 119, OBSERVATORY INFO: 464-5202 after 5 pm

"The Heavens Declare the Glory of God, and the Firmament Shows His Handiwork" - Ps 19:1

GOALS:
• To become familiar with the variety of stellar objects in the cosmos.
• To learn how one can use basic physical principles to understand the physical processes involved in the observed stellar phenomena.

In this course we will survey stellar astrophysics. I expect you to have a background in physics and mathematics up through a course in modern physics (Phys 243 is a prerequisite). We have added a new course in Galactic Astrophysics, so that will not be covered here, nor the Solar System. It is my hope that you find the course to be interesting and instructive, and that you come to share in the excitement of modern stellar astrophysics.


ATTENDENCE/PARTICIPATION: I expect you to be at each class and to be an active participant in learning this material. Please let me know if you need to miss class.

READINGS: I expect you to read through the assigned reading prior to class. This will enhance your learning and make our class time more profitable.

QUIZZES: There will be a regular unannounced quizzes on the assigned reading, approximately every other class; use these as opportunities to keep current with the material.

ASSIGMENTS: There will be problem sets assigned almost weekly, which will be collected and graded. Work diligently on these problem sets, since they will help you to understand the material and serve as good preparation for the tests. I will schedule a weekly help/review session to go over the assignment questions (see below). If you are having difficulty with an assignment problem, you may also discuss it with other students, but you must work the answers out yourself. Each assignment must be handed in on time; otherwise it will be given a zero (unless approval is gained from me because of special circumstances - see me about this ASAP). Please sign the honor code in full.

SHORT PROJECTS: There will be a few short projects assigned during the semester.

PRESENTATION: Near the end of the course, you are to pick a topic on which to give a short oral powerpoint presentation. I will give you more info on this later.

HELP/REVIEW SESSIONS: I will conduct these weekly. These will provide an opportunity to talk about the assigned problems, to go over previous problems in which there were difficulties, and to discuss other astronomy-related matters. I will also occasionally use these times to show some astronomy videos for which there is not time in class. Attendance at these is optional.

HONOR CODE: You are to carry out your learning with integrity. It is assumed that you subscribe to the VU Honor Code, which should be written out in full and signed on all work that you turn in for a grade. I will explain specifically what constitutes authorized aid on each piece of work turned in for a grade.

COURSE GRADE:

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<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
<th>Grade Range</th>
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<tbody>
<tr>
<td>Assignments</td>
<td>33%</td>
<td>A: 90-100%</td>
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<tr>
<td>Quizzes &amp; projects</td>
<td>11</td>
<td>B: 80-90%</td>
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<tr>
<td>Paper/presentation</td>
<td>6</td>
<td>C: 70-80%</td>
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<tr>
<td>Three tests (3x11)</td>
<td>33</td>
<td>D: 60-70%</td>
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<tr>
<td>Final</td>
<td>17</td>
<td>F: &lt;60%</td>
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<td><strong>Total</strong></td>
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