General Information

Instructor: Travis Martin
Email: travismartin@uvic.ca
Office: Elliot 402B
Office Hours: TBA
Course Webpage: http://coursespaces.uvic.ca

Lecture Schedule: Tues, Wed, Fri from 11:30am - 12:20pm in DSB C103.

Prerequisites: There are no prerequisites for this course. The material covered in this course will be taught with a minimum expectation of mathematics. Students comfortable with mathematics and physics may wish to consider taking ASTR150 and/or 250.

Course Materials:

- (Required) Astro 101 Lab Manual
- (Required) i>Clicker
- (Recommended) The Solar System by Seeds and Backman.
  Note: The bookstore sells both paperback and digital-only copies, which include the online MindTap system bundled together. The MindTap system is used to access digital copies of the textbook. There is no option to purchase it without MindTap through the bookstore. Other sellers may have paperback versions of the text, which work just as well.

Some notes regarding minimum participation in order to pass this course:

- **You must achieve a minimum 50% grade in the lab component of the course in order to pass the course.** Students who miss a lab for a valid reason (doctor confirmed illness or family emergency) will be offered the opportunity to write a makeup lab at the end of the semester. For all such cases, contact the course instructor, Travis Martin, immediately. Missing a lab without this approval will result in a 0 for that lab exercise.

- **You must achieve a minimum overall 40% grade in the quiz and clicker components of the course, separately, in order to pass the course.**

A failure in any of these conditions will result in a grade of F for the course, regardless of your overall performance in the course.
Course Outline

The lecture slides for this course generally follow the material in the recommended textbook. However, the material has been arranged in a non-linear fashion, and some extra material (not in the textbook) has been included to round out the discussion.

Below is an approximate outline of the order and dates in which material will be covered. Depending on the depth of in-class discussion, the material may take more or less time than anticipated. In the scenario that material takes longer than expected, some slides may be skipped in the lectures. Students are responsible for ALL of the material in the slides, including those that are skipped, since the full set of slides are available to students via CourseSpaces.

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<thead>
<tr>
<th>Lecture</th>
<th>Topic</th>
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<tbody>
<tr>
<td>Lec 1</td>
<td>Introduction</td>
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<tr>
<td>Lec 2-4</td>
<td>Topic 1 - Science and Astronomy</td>
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<tr>
<td>Lec 5-7</td>
<td>Topic 2 - The Night Sky</td>
</tr>
<tr>
<td>Lec 8-11</td>
<td>Topic 3 - History of Astronomy</td>
</tr>
<tr>
<td>Lec 12-13</td>
<td>Topic 4 - Light and Matter</td>
</tr>
<tr>
<td>Lec 14-16</td>
<td>Topic 5 - Telescopes</td>
</tr>
<tr>
<td>Lec 17-19</td>
<td>Topic 6 - The Sun</td>
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<tr>
<td>Lec 20-23</td>
<td>Topic 7 - The Earth</td>
</tr>
<tr>
<td>Lec 24-27</td>
<td>Topic 8 - Terrestrial Planets</td>
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<tr>
<td>Lec 28-30</td>
<td>Topic 9 - Jovian Planets</td>
</tr>
<tr>
<td>Lec 31</td>
<td>Topic 10 - Asteroids, Comets, and other objects</td>
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<tr>
<td>Lec 32-34</td>
<td>Topic 11 - Origin Theories</td>
</tr>
<tr>
<td>Lec 35-36</td>
<td>Topic 12 - Exoplanets and Exobiology</td>
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</table>
Grading

This course has four grading components. The weighted average from these four components will be used to guide the grade assessment. If the application of this scheme would result in grades that are judged by the instructor to be inconsistent with the University’s grading descriptions (https://web.uvic.ca/calendar2014/FACS/UnIn/UARe/Grad.html), then the instructor will assign percentages consistent with them. The instructor will review all lab marks prior to assigning a final grade.

Clicker Questions: 10%

Clicker question grades are participation based only. There will be at least one clicker question per lecture, and questions may occur at any time during the lecture – placement within the material is based on learning objectives. (Note: Students arriving late or leaving early may miss enough questions to not receive any marks for the lecture.) These questions are meant to encourage students to pay attention and participate actively in the class.

Quizzes: 20%

Quizzes will be administered via CourseSpaces on Thursdays, approximately every other week (total of 5 quizzes). Students are responsible for tracking the dates of the quizzes and ensuring they are completed. Because the quizzes are available for an entire day, missing a quiz for any reason other than illness will not be accommodated. In the case of illness, the grade weight for that quiz will be redistributed among the other quizzes and/or final exam.

The quizzes are open book, but students may NOT collaborate with other people or seek outside help. I will be using software to monitor the quizzes and students found collaborating may be reported to the university administration for an academic integrity violation.

These quizzes will be comprised of a combination of multiple choice questions, true/false questions and short answer questions. These questions will focus on the material covered in the lecture slides, but may require you to investigate the material further in order to fully understand the concepts.

Laboratory Activities: 25%

You must attend your scheduled lab section. You are not free to attend other lab sections without approval of the lab supervisor.

There are a total of five labs throughout this course. These are experiential sessions to provide students with a hands-on understanding of the material. More information about the labs is provided in the lab manual that students must purchase for the course.

Due to the challenges of coordinating labs and lectures, it is not possible to synchronize the material from the labs with the material from the course. Some labs exercises may precede the discussion of the material in the lectures, however steps are taken to minimize this as much as possible.

Final Exam: 45%

The material of the final exam will be comprehensive of the material covered in the course, and the questions will be similar in style and scope to those in the quizzes. However, there may be additional types of questions, such as image identification. Thus, it is important that students be able to identify images presented throughout the lectures.
Success and Performance

Students often ask at the end of the semester, “Is there anything I can do to improve my grade?” Unfortunately, by the end of the semester, it is too late. This course does not offer supplementary graded material to improve grades. Here are some tips to help achieve the best possible grade.

Attend Lectures - Might seem like a no-brainer, but it is critical. Many students justify to themselves “I will just read the slides and catch up”, but context is critical and the things said in-class explain what is on the slides. Exam questions are often taken from the material covered in the class discussion, not directly from slides.

Ask Questions - The lectures are open to dialogue. If something doesn’t make sense, or you would like more clarification, or you have any type of question, please raise your hand and ask in the class. If you don’t feel comfortable asking in front of the other students, or questions occur to you outside of class, come see me either after class or during office hours.

Study BEFORE the Quizzes - The quizzes are open book, but they have challenging questions that are not directly answered in the slides, or require reading and considering the information on multiple slides to fully understand. Studying before starting the quizzes will help you perform better, plus it will help your studying for the final exam go much smoother.

Read the textbook and use the textbook online resources - The MindTap system that comes with the electronic access for the textbook has a number of quizzes that have practice questions and other bits of information that can help your understanding. Also, Astronomy is a highly visual subject, so reviewing the illustrations and the accompanying text for the illustrations is very helpful.

The following table illustrates the typical marks achieved in each component of the course for the associated final course grade:

<table>
<thead>
<tr>
<th>Final Grade</th>
<th>Quiz Marks</th>
<th>Clicker Marks</th>
<th>Lab Marks</th>
<th>Final Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-range</td>
<td>75-100</td>
<td>90-100</td>
<td>85-100</td>
<td>70-95</td>
</tr>
<tr>
<td>B-range</td>
<td>65-85</td>
<td>80-100</td>
<td>75-95</td>
<td>60-85</td>
</tr>
<tr>
<td>C-range</td>
<td>55-75</td>
<td>70-90</td>
<td>65-85</td>
<td>45-70</td>
</tr>
<tr>
<td>D-range</td>
<td>40-70</td>
<td>40-70</td>
<td>50-75</td>
<td>35-55</td>
</tr>
</tbody>
</table>

For example, a student receiving 70% on the final exam could still get an A-range grade, depending on how well they do in the other components of the course. While the Clicker grades are only worth 10% of your grade, performing well in them can help compensate for a low mark on quizzes or the exam.

The typical grade distribution is A-range: 30%, B-range: 35%, C-range: 20%, D-range: 10%, F: 5%. Students who fail typically do so by consistently not engaging in course material, skipping lectures, skipping labs, and failing to participate in the quizzes.
University Regulations on Academic Integrity

These regulations are reproduced from [http://web.uvic.ca/calendar2011/FACS/UnIn/UARe/PoAcI.html](http://web.uvic.ca/calendar2011/FACS/UnIn/UARe/PoAcI.html). For full information, including procedures for dealing with academic integrity infringement, see the webpage linked above.

Several types of academic integrity violations are covered in brief below.

**Plagiarism**

A student commits plagiarism when he or she:

- submits the work of another person as original work
- gives inadequate attribution to an author or creator whose work is incorporated into the student’s work, including failing to indicate clearly the inclusion of another individual’s work
- paraphrases material from a source without sufficient acknowledgement as described above

Students who are in doubt as to what constitutes plagiarism in a particular instance should consult their course instructor.

**Falsifying Material Subject to Academic Evaluation**

Falsifying materials subject to academic evaluation includes, but is not limited to:

- fraudulently manipulating laboratory processes, electronic data or research data in order to achieve desired results
- using work prepared by someone else (e.g., commercially prepared essays) and submitting it as one’s own
- citing a source from which material was not obtained
- using a quoted reference from a non-original source while implying reference to the original source
- submitting false records, information or data, in writing or orally

**Cheating on Assignments, Tests/Quizzes and Examinations**

Cheating includes, but is not limited to:

- copying the answers or other work of another person
- sharing information or answers when doing take-home assignments, tests and examinations except where the instructor has authorized collaborative work
- having in an examination or test any materials or equipment other than those authorized by the examiners impersonating a candidate on an examination or test, or being assigned the results of such impersonation

  - **assisting others to engage in conduct that is considered cheating**

I will be using software to analyze student responses on class work to ensure that student responses are sufficiently unique.

The most common form of violation in this course is in the labs. Lab reports will be monitored for copying and information sharing beyond what is allowed in the lab period. Any copying, either of another student’s work or from the internet/lab manual/textbook will result in a zero on the offending work and a formal review for an academic integrity violation.