Astronomy 122

The Birth and Death of Stars

Summer Quarter 2020

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Course Content:
Stars are directly, or indirectly, the source of all the energy necessary to sustain life on our world. This course will study the birth, evolution and death of stars in the Milky Way galaxy, with a particular emphasis on the underlying science behind stellar and galactic evolution, the observational aspect to astronomy and our knowledge of how the Universe operates on the stellar scale. The goals of this course are:

- Introduction to the basic forces and structure of matter
- Obtain an understanding of the sciences underlying observational astronomy
- Develop problem solving skills relating to the mathematics, physics and chemistry of stars

This course requires a basic understanding of mathematics. Please read the requirements for this course and if you feel you do not have the appropriate skills, please do not take this class.

Course Organization:
Note: This course will be delivered on-line until we are cleared to meet in the lecture halls. I will notify you by email when we are authorized to return to the classrooms. An on-line course places extra responsibility on you, the student, to keep up with the material and be aware of the deadlines. I will alert you by email on deadlines for exams, but it is your responsibility to keep up with the lectures and readings.

All lectures in this course will be delivered electronically. The lecture pages will be on the Web in HTML (hypertext mark-up language) format so that they are accessible from any computer, either at home or on campus. All students are required to obtain University computer accounts
(or any Internet server of your choice) since all the course material is in Web format and all quiz assignments will be on the class website. The address for this course is abyss.uoregon.edu/~js/ast122.

We are using the computer network in this class for several reasons:

- **Network literacy** is a key skill to obtain for an undergraduate education.
- Since the course material is always available, there is less of a need to scramble to take notes during class. You can focus on paying attention. I recommend printing the week's lectures on Sunday, and bringing those pages to class to jot your own notes in the margins.
- There is lots of material out there on the Internet which is relevant for this class.

Use the email system. Often professors only hear from students through office hours, and those students are usually the ones having trouble in the course. When you study or review your notes, send me questions by email (jschombe@uoregon.edu). Also email me suggestions and comments about the course, particularly in the first few weeks in order to have an impact during the term.

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**On-line Quizzes:**

In order to get you to engage the lectures, the course has a quiz at the end of each web lecture. At the bottom of each lecture you will find a "quiz" button. Hit it and take a quiz of 10 questions. You can restart a quiz at any point, take it with open book, notes or web pages. Please do your own work for these quizzes. They are learning exercises and cheating on them will only lower your exam score as you will miss critical material.

These quiz questions count the same as an exam question. Your final grade will be based on the exam scores plus quiz scores. Not doing the quizzes will be the same as not taking an exam and subject to a failing grade. You will find that the quiz material comes from the web lectures and things discussed in class.

NOTE, you have only a limited window to take the quiz, the schedule is posted on the class web page (typically you have a few days after the lecture). Miss the date and you will be unable to take the quiz (the point of the quizzes is to get you to study before the night of the exams, hence the deadline). The quiz answers and scores are posted after the deadline. For this reason you cannot submit your quiz answers late. The answers are posted and late submission will not be allowed regardless of the **excuse**.
Due to the large number of quizzes, it is highly likely that you will miss a quiz deadline or your dog will eat the internet the night before they are due. Thus, each student will be allowed to drop the three lowest quiz scores for the final grade. If you miss three quizzes, then those three zeros are dropped. If you answer all the quizzes on time, then your three lowest scores will be dropped. If you miss more than three quizzes you will be dropped 1/3 a letter grade (i.e. B+ to B) per group of three that you miss in a step-like fashion (i.e., you miss 1-3 quizzes, no penalty; miss 4-6 quizzes, you lose 1/3 a grade, miss 7-9 quizzes, you lost 2/3's a grade, etc.).

To summarize:

1. Quizzes are on-line and mandatory
2. The deadlines are posted on the main web page
3. Answers and scores are posted immediately after the deadline
4. Because the answers are posted, no late quizzes will be accepted, none, zip, zero
5. You can drop your lowest three quiz scores (these might be the three you missed and got zeros)

Grading:

Grading will consist of the following:

- Three exams worth 2/3 of your grade (held in class on the dates posted at the main class web page).
- On-line quizzes at the end of every lecture worth 1/3 of your grade (see below).

The three exams are large, difficult multiple choice exams. Each exam covers 1/3 of the course. The exams are designed using material from the lectures and the textbook, so mastery of both is required for a good grade. Not taking an exam will automatically fail you from the course.

The exams will be administered on-line at the dates posted on the main webpage. As we approach the first exam I will send our more detailed instructions.

Notice there is no final exam during final exam week. The three exams taking during the classtime consist of all the exams towards your grade.

Your grade will be based on the sum of the quiz and exam scores. You must maintain an average of greater, or equal, to 45% to pass the course. Above that score, your grade is ranked compared to other students and your grade is assigned based on that rank using a standard bell curve. The class website has a button to find out what your current grade is, which is activated after the first exam. Note that the exams are worth more than the quizzes, failing all the exams will mean you fail the course, regardless of your quiz scores.

Read the FAQ for more questions about grading.
Some students are uncomfortable with a pure web-based course and would prefer a textbook to study. The textbook for this class is Schneider & Arny "Pathways to Astronomy", and the reading assignments are (note you can purchase an electronic version at McGraw-Hill or hardcopy at amazon.com.

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Academic Honesty:

A recent survey of UOregon upperclassmen has indicated that 91% admit to cheating on a written assignment or exam. Every effort will be made in this class to deter dishonesty through classroom procedures. You are all welcome to work in groups on Homework assignments, however exams must be based on individual work only (i.e. don't look at someone else's exam). It is degrading to impose draconian security measures to enforce honesty. Instead, we will use the honor system in this course and allow each of you to uphold your personal standards of conduct. For those of you who have failed to develop your own ethics, the University has designed the Student Conduct Program. To also help you down the ethical path, anyone caught cheating will receive an 'F' for the course.

Accommodations:

If you have a disability and anticipate needing accommodations in this course, please see me as soon as possible. And please request that the Counselor for Students with Disabilities (disabsrv@uoregon.edu) send a letter verifying your disability.