Astronomy of Stellar Systems - AST 102-QL - Fall 2013

Instructor: Dr. Perry Gerakines, gerak@uab.edu
- Use email as the primary method to contact me.
- Put "AST 102" in the subject line of each message you send.

Office: Since I am not located in Birmingham, we will not be able to meet in person. However, if you do need to meet with a person (for tasks that cannot be completed by email or telephone) please see Dr. Robert Mohr (rmohr@uab.edu), in Campbell Hall room 382.

Office Hours: will be conducted over Blackboard Collaborate or other method as needed at a mutually agreeable time. Feel free to send me a request by email.

Course Websites:
- Blackboard (via BlazerNet, www.uab.edu/blazernet): This is the main course website. Here you will find grades, lectures, activities, discussion forums, announcements, and more. Start here.
- AstroPortal for Discovering the Universe (courses.bfwpub.com/dtu9e): This is the website for the textbook and related homework activities. You are required to purchase access to this site. Access may be purchased online directly at the link above or at the UAB bookstore.

Lab Science Co-requisite:
- AST 112 - Astronomy of Stellar Systems Laboratory. You might be required to take this co-requisite lab course if you are taking AST 102 as a core requirement. Check with your academic adviser (i.e., not me) if you are unsure!

Last Day to Withdraw:
- The last day to withdraw from this course with a grade of "W" is Oct 25th.

Course Topics:
- Methods and technologies used to observe the stars
- How the properties of stars are deduced from the observations
- Stars and their lifecycles
- The interstellar medium
- Black holes
- Galaxies as systems of stars

Course Objectives:
- Gain/develop an understanding of the processes involved with making an observation in astronomy.
- Gain/develop an understanding of the physical properties of stars and how they are determined from astronomical observation.
• Gain/develop conceptual understandings of light, spectroscopy, stars, the interstellar medium, black holes, and galaxies.

Textbook:
• **REQUIRED** - Online AstroPortal for Discovering the Universe, 9th ed, by Comins and Kaufmann (courses.bfwpub.com/dtu9e)
  - Access codes may be purchased directly from the publisher's website (courses.bfwpub.com/dtu9e) or at the UAB Bookstore. Each student must purchase their own access code. Access codes will allow 4 semesters of use over a 4-year span.
  - Much of the course material, including required readings and homework questions, will be found on this site. Homework will also be submitted electronically on the AstroPortal site itself. The e-textbook features many interactive study guides, topic exploration tools, and web links not available in the printed version. Please take some time and explore the many tools available to you on this site.

• **OPTIONAL** - Printed Textbook
  - Since all information from the printed textbook (and more) can be found on the AstroPortal website, purchasing the hardcopy, printed textbook is not required. However, the UAB Bookstore is selling a combination package that contains BOTH the online access code and the printed textbook.

Homework:
• There will be required readings and homework assignments each week. Homework from the textbook must be submitted through the AstroPortal website under the ASSIGNMENTS tab. Each assignment will be made up of multiple-choice and/or short-answer questions. Homework will become accessible on the AstroPortal site at least 1 week before the due date. No homework will be accepted after the listed due date and time. Please login early and make sure you can access the homework assignment.

**FOR TECHNICAL PROBLEMS RELATED TO THE ASTROPORTAL WEBSITE** - please call the technical support line at 1-800-936-6899 (9:00 AM – 3:00 AM EST Monday -Friday, 11:30 AM - 8:00 PM EST Saturday and Sunday). I cannot help with those issues.

Exams: There will be 1 Mid-Term Exam, and 1 Final Exam. Format to be announced within two weeks.

Grades: There will be 3 sources of grades: the homework average, the mid-term exam score, and the final exam score. **By far, the largest influence on your course grade will be the weekly homework assignments.**

• HW Avg = all HW points earned ÷ the total number of possible HW points (in %).
• Course grade = (0.60 × HW Avg) + (0.20 × Mid-Term score) + (0.20 × Final Exam score).
• Your grades will be accessible on the Blackboard website and only to you. For the protection of your privacy, I will not give out grades to anyone by telephone or email.

• No extra-credits will be given. Please plan ahead and seek help early if you need it! If you have the goal of a certain grade for this class, then please pay attention to your HW grade after the first 2-3 weeks and contact me as soon as possible for help if you are not keeping up with that goal.

• All grades will be rounded to the nearest 1% and assigned according to:
  A: 90% or above, B: 80-89%, C: 70-79%, D: 60-69%, F: below 60%.

Lectures/Lecture Notes:
• Lecture notes will be available on the Blackboard website each week. A pre-recorded lecture, a homework assignment, and various web-based activities will accompany each set of notes.

Students with disabilities:
• Every effort will be made to accommodate students with disabilities in this class. All requests must be made through the office of Disability Support Services (dss@uab.edu; 934-4205).

Academic Honesty:
• You are expected to have read and to adhere to the UAB Academic Honor Code as listed in the student handbook and undergraduate catalog. Any acts that are deemed by your instructor to violate the UAB Honor Code will result in an immediate failing grade for this course.

Suggested Reading:
• The New York Times "Science Times" weekly section every Tuesday
• Sky & Telescope monthly magazine; may be found in the UAB Sterne Library.
• The Whole Shebang, by Timothy Ferris. (Popular science)
• Ring, by Stephen Baxter. (Science Fiction)
• Web:
  o NASA, www.nasa.gov
  o Space.com, www.space.com
  o Sky and Telescope magazine, skyandtelescope.com
  o Astronomy Picture of the Day, apod.nasa.gov/apod/