

Astronomy 380- Astrophysics: Stars

Sonoma State University
Department of Physics and Astronomy
Spring 2008

General Information

Instructor: Dr. Scott A. Severson

Class Schedule: 1:00 – 2:15 PM Tuesday and Thursday

Location: Darwin 300C P&A Dept Conference Room

Office Hours: 11:00 - 11:50 AM Monday, Tuesday, Thursday

Office: Darwin 300L

Email: scott.severson@sonoma.edu

Phone: (707) 664-2376

Course Website:

<http://www.phys-astro.sonoma.edu/people/faculty/severson/a380>

Course Description

This is a three-hour lecture course. A quantitative study of the structure and evolution of stars, including stellar interiors and atmospheres, nucleosynthesis and late stages of stellar evolution.

Textbook (Select one of the following)

(1) An Introduction to Modern Astrophysics (2nd Edition)

Full content for two-semester introduction to astrophysics, includes galaxies and cosmology.

Authors:

Carroll and Ostlie

ISBN-10

0805304029

(2) Introduction to Modern Stellar Astrophysics (2nd Edition)

Selected content appropriate for our one-semester course on stellar astrophysics.

Authors:

Carroll and Ostlie

ISBN-10

0805303480

Policies

University Policies

There are important University policies that you should be aware of, such as the add/drop policy; cheating and plagiarism policy, grade appeal procedures; accommodations for students with disabilities and the diversity vision statement. (Go to this URL to find them:

<http://www.sonoma.edu/uaffairs/policies/studentinfo.shtml>

Grading

***Homework* 40 %**

Homework assignments are due Thursday at the beginning of class. Expect about one problem set per week. I encourage you to work problems through independently before working with classmates to review and collaborate. The sharing of ideas is encouraged, copying of answers is forbidden. I may explicitly designate some problems as group work and then a group solution is allowed. I will drop your lowest homework grade.

***Mid-Terms (2)* 25 %**

There will be two in-class exams, Thursday March 13 and Thursday April 24. You are allowed to bring a single sheet of notes to each exam.

***Oral Presentation* 10 %**

Students will give individual 15-minute scientific journal article review talks near the end of the semester. Students may propose a paper or select from list of suggested readings.

***Final Exam* 25 %**

There will be a cumulative final exam, Thursday, May 22 2:00 p.m-3:50 p.m.. The format will be similar to the midterms and a sheet of notes is allowed.

Instructor Discretion

I reserve the right to raise your grade if exceptional effort and class participation are observed through the semester. Improvement throughout the semester is also noted.

Other Class Policies

- Questions are encouraged.
- Turn off cell phones and other distracting small electronics.
- Arrive to class on time.
- Try your best to attend every class.
- Read subject material before each class.
- Start homework problems early. Do not fall behind!
- Come to my office during my office hours with questions.

Approximate Course Schedule

Week	Class Date Tuesday	Class Date Thursday	Carroll & Ostlie Reading	Administrative
1	Jan 29	Jan 31	Ch. 3 (Ch. 1 Optional)	
2	Feb 05	Feb 07	Ch. 3, Ch. 5	
3	Feb 12	Feb 14	Ch. 5, Ch. 8	
4	Feb 19	Feb 21	Ch. 8, Ch. 9	
5	Feb 26	Feb 28	Ch. 9	
6	Mar 04	Mar 06	Ch. 9, Ch. 10	
7	Mar 11	Mar 13	Ch. 10	Exam 1 (Ch. 3, 5, 8 & 9)
8	Mar 18	Mar 20	Ch. 10, Ch. 11	
9	-	-	-	<i>(Spring Break)</i>
10	Apr 01	Apr 03	Ch. 12	
11	Apr 08	Apr 10	Ch. 12, Ch. 13	
12	Apr 15	Apr 17	Ch. 13, Ch. 14	
13	Apr 22	Apr 24	Ch. 14, Ch. 15	Exam 2 (Ch. 10-13)
14	Apr 29	May 01	Ch. 15, Ch. 16	
15	May 06	May 08	Ch. 16	
16	May 13	May 15	Ch. 16	
17	-	May 22	-	Cumulative Final