General Information

Instructor: Dr. Scott A. Severson
Class Schedule: 10:45 AM – 12 Noon Tuesday and Thursday
Classroom Location: Darwin 29
Office Hours: Monday 11 – 11:50 AM
       Tuesday 1 – 1:50 PM
Office: Darwin 300L
Email: scott.severson@sonoma.edu
Phone: (707) 664-2376
Course Website:
   http://www.phys-astro.sonoma.edu/people/faculty/severson/a305
Course Moodle site available via login to SSU Online Services:
   http://login.sonoma.edu/

Course Description

This is a three-hour lecture course. The course will present a survey of recent
developments in astronomy: the exploration of the solar system; the study of extrasolar
planets; the nature of high-energy phenomena in the universe and the evolution and future
of the universe.

General Education

This course may be used to satisfy general education requirements in category B3.

Prerequisite:
One prior course in astronomy.

Textbook

On The Cosmic Horizon: Ten Great Mysteries for Third Millennium Astronomy

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<thead>
<tr>
<th>Author</th>
<th>ISBN</th>
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<tbody>
<tr>
<td>Jeffrey Bennett.</td>
<td>0-3210-2971-2.</td>
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Note:
This text presents an overview of “Big Questions” in the field of Astronomy. It serves at
the starting point for our course. There will be other required reading presented in the
form of articles and web references and at least one additional popular-science book for the book report assignment.

**Policies**

**University Policies**
There are several important University policies of which you should be aware, 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 for details:
http://www.sonoma.edu/uaaffairs/policies/studentinfo.shtml

**Grading**

**Relative Weighting**

*Attendance / Participation 20 %*

Participation will be a component of your final grade. I will occasionally and randomly require students to sign attendance. I will also make note of participation during in-class discussion and the asking of pertinent questions. There will be occasional reading and in-class activities that will be turned in for credit. Finally, I encourage at least one office visit during the semester.

*Writing Assignments 30 %*

There will be two short writing assignments during the semester. These assignments include, a synthesis of web-based research (15%) and a summary of *Scientific American*-level magazine articles (15%). Details of these assignments will be provided in class and on the course Moodle site.

*Research Paper 25 %*

The research paper is an assignment designed to enable you to study one topic in depth. The paper should be six to ten pages of double-spaced typed text, plus footnotes or endnotes and a bibliography. Late papers will be penalized. Your paper should have at least three sources, including at least one from the world wide web and at least one from a book or article in a periodical. There will be a list of pre-approved topics presented in class, and students may suggest other topics which will require instructor approval. Topics for this paper are due on 10/25/12. The paper itself is due 11/29/12.

*Final Exam 25 %*

There will be a final exam, which will consist of several short answer questions. A list of questions will be handed out prior to the exam, from which several will be chosen. It will be held on: *Tuesday, December 11th, 11:00 AM – 12:50 PM.*

*Extra Credit up to 9%*

Extra Credit is available for attending a public talk on some current astronomical or physics topic and submitting a one-page synopsis via Moodle. The submission will be checked for originality. You may submit up to three synopses for three different talks. Each is worth up to 3% extra credit, meaning you can earn up to 9% total extra credit on your course grade. The assignments are graded on a scale from one to three based on
presenting a one-page, double-spaced, coherent and comprehensive summary of the talk. Researching and defining unclear concepts is recommended.

The Department of Physics and Astronomy will present a free public lecture in its renowned “What Physicists Do” series most Mondays during the semester, from September 10th through November 26th at 4:00 p.m. in Darwin 103. See the following URL for details and a list of speakers and topics: http://phys-astro.sonoma.edu/wpd/. Other appropriate external work may be substituted with instructor approval.

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.

Course Standards
The bulk of the graded course materials are writing assignments. These assignments will be graded according to a rubric and assigned a letter grade. These letter grades will be averaged, taking into account their relative course weighting described above, in order to determine your final grade. Writing assignments will be submitted via Moodle and checked for originality. Example rubric categories for assignment grading includes:

- **Ideas** – how interesting the and sophisticated are the ideas presented,
- **Organization/Coherence** – is it well structured with a logical progression,
- **Support** – do you provide appropriate evidence and citations,
- **Style** – how effective are the choice of words, is it geared toward the appropriate audience
- **Mechanics** – is it free of spelling and grammatical errors.

Other Class Policies

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