

Salt Lake Community College
PHYSICS 1040: ELEMENTARY ASTRONOMY – FALL 2012
SECTION 010, LAC 106, TR 8:30 AM – 9:50 PM (41762)

Instructor: Jonathan Barnes (jonathan.barnes@slcc.edu)
Phone: 801-957-4190

Office Hours: SI 223 MTWR 12:00 – 12:50 PM
Class Website: The link is on SLCC MyPage

Text: *Understanding Our Universe*, Stacy Palen, et al.

Overview: This is an introductory astronomy course for students who want to enhance their understanding of the universe and the fundamental laws governing the motion of the stars and planets. Students will come away from the course with a sense of understanding of how things work in the world around them.

Grading Policy: There will be five components to your grade.

- Quizzes (10%):** Quizzes will be given at the beginning of most classes to review the principles to be covered that day. You are encouraged to discuss these with other class members. Quizzes may not be made up and will not be returned to the student. *You must be on time for class and stay for the class period to receive credit for the quiz. Class period will be heavily weighted toward student interests, questions, and discussions.*
- Assignments (20%):** Assignments are required to be done online at smartwork.wwnorton.com by the due date given. You register using the registration number which comes with your new textbook, or by purchasing a registration number from the website. After registering, you must join the class by using the class code **JB1040FALL2012**. Assignments submitted after the due date will receive no credit. These assignments require time and are not conducive to procrastination. Note that the assignments are due prior to the date of the class discussion.
- Science Opinion Papers and ePortfolio Entry (20%):** For four different topics, corresponding to a subject within each unit (i.e., the introduction, the solar system, stars, and galaxies), students are required to pick a topic of interest and write an astronomy blog entry. An astronomy blog entry should be current, explain the history of the topic, the science behind the topic, express opinions about the topic, and give the relevance of the topic, all while being interesting to the reader. Each blog entry should be turned in through the student ePortfolio, be at least two pages, be well written, have appropriate source documentation, and will be reviewed by peers, friends, and/or family prior to being graded. A reflection, written at the end of the semester, is required in the ePortfolio to receive credit for this assignment. More information will be available on the course website.
- Science in the News Journal (10%):** This is a journal created by the student and updated throughout the term that should consist of summaries of current news stories encountered that pertain to Astronomy. To receive full credit, each entry must include the News Story Date, the News Story Title, the source, a summary, and an opinion of the article. Entries in this journal can come from television stories (CNN, local news, etc.), television shows (NOVA, Nature, etc.), newspapers, magazines, or credible Internet sites (space.com, livescience.com, etc.). You must have one entry each week.
- Tests (40%):** There will be four exams and a final (worth the equivalent of two tests). You may use one "8½ x 11" sheet of notes for each test. If you are required to be absent the day of a test, you must notify the instructor prior to the test day or you may not be allowed to make up the test. Each of the tests will require a Scantron form which you can purchase inexpensively at the SLCC Bookstore.

Extensions of time for assignments and exams are only available at the discretion of the professor and only if requested PRIOR to the due date. Students unable to attend the scheduled test must notify the professor PRIOR to the time of the test (contact info above).

Extra Credit and Current Events in Astronomy: If you share your Science in the News Journal entry with the class you can earn points to replace one missed question on the next exam score (maximum two per test).

Ethics: The college code of ethics will represent the standard for class conduct. Evidence of cheating will constitute grounds for dismissal from the class and an 'E' grade.

Students with medical, psychological, learning or other disabilities desiring accommodations or services under ADA, must contact the Disability Resource Center (DRC). The DRC determines eligibility for and authorizes the provision of these accommodations and services for the college. Please contact the DRC at the Student Center, Suite 244, Redwood Campus, 4600 So. Redwood Rd, 84123. Phone: (801) 957-4659, TTY: 957-4646, Fax: 957- 4947 or by email: linda.bennett@slcc.edu.

Grading Scale	
A	> 93%
A-	90 – 92%
B+	87 – 89%
B	83 – 86%
B-	80 – 82%
C+	77 – 79%
C	73 – 76%
C-	70 – 72%
D+	67 – 69%
D	63 – 66%
D-	60 – 62 %
E	< 59%

Keys to Success:

- ✓ Be prepared for class – *read the chapter, think about the material and prepare questions you want to ask.*
- ✓ Take responsibility for your learning – *form study groups, and discuss class topics, do the homework early.*
- ✓ Find examples of current class topics in current events – *bring them in to discuss with the class.*

Physics 1040 Calendar – This schedule is tentative and subject to change.
Students are responsible for all announcements made in class concerning calendar changes, etc.

Fall 2012

Date	Material Covered	Homework Due
23-Aug	Syllabus / Chapter 1: Our Place in the Universe	
28-Aug	Chapter 1: Our Place in the Universe	Intro / Chapter 1
30-Aug	Chapter 2: Patterns in the Sky—Motions of Earth	Chapter 2
4-Sep	Chapter 2: Patterns in the Sky—Motions of Earth (<i>Interest in Astronomy</i>)	
6-Sep	Chapter 3: Laws of Motion	
11-Sep	Chapter 4: Light and Telescopes	Chapter 4
13-Sep	Chapter 4: Light and Telescopes	
18-Sep	(<i>Government and Science</i>)	
20-Sep	EXAM 1 (Chapters 1 – 4)	Blog due in ePortfolio
25-Sep	Chapter 5: The Formation of Stars and Planets	Chapter 5
27-Sep	Chapter 6: Terrestrial Worlds of the Inner Solar System	Chapter 6
2-Oct	Chapter 7: Atmospheres of Venus, Earth, and Mars	Chapter 7
4-Oct	Chapter 7: Atmospheres of Venus, Earth, and Mars (<i>Climate Change</i>)	
9-Oct	Chapter 8: The Giant Planets	Chapter 8
11-Oct	No Class – Fall Break	
16-Oct	Chapter 9: Small Bodies of the Solar System (<i>Human Spaceflight</i>)	Chapter 9
18-Oct	Exam 2 (Chapters 5 – 9)	Blog due in ePortfolio
23-Oct	Chapter 10: Measuring the Stars	Chapter 10
25-Oct	Chapter 10: Measuring the Stars	
30-Oct	Chapter 11: Our Star: The Sun (<i>Nuclear Energy</i>)	Chapter 11
1-Nov	Chapter 12: Evolution of Low-Mass Stars	Chapter 12
6-Nov	Chapter 13: Evolution of High Mass Stars	Chapter 13
8-Nov	Exam 3 (Chapters 10 – 13)	Blog due in ePortfolio
13-Nov	Chapter 14: The Expansion of Space	Chapter 14
15-Nov	Chapter 15: The Realm of the Galaxies	Chapter 15
20-Nov	Chapter 16: Our Galaxy: The Milky Way	Chapter 16
22-Nov	No Class – Thanksgiving Holiday	
27-Nov	Chapter 17: Modern Cosmology and the Origin of Structure	Chapter 17
29-Nov	Chapter 18: Life in the Universe	Chapter 18
4-Dec	Exam 4 (Chapters 14 – 18)	Blog due in ePortfolio
6-Dec	Final Exam Review – ePortfolio Check	
	Final Exam – 8:30 AM Class: Tuesday, December 11, 9:00 – 11:00 AM	Science in the News Journal Due Reflection due in ePortfolio

GENERAL EDUCATION STATEMENT

This course is part of the General Education Program at Salt Lake Community College. It is designed not only to teach the information and skills required by the discipline, but also to develop vital workplace skills and to teach strategies and skills that can be used for life-long learning.

While the subject of each course is important and useful, we become truly educated through making connections of such varied information with the different methods of organizing human experience that are practiced by different disciplines. Therefore, this course, when combined with other General Education courses, will enable you to develop broader perspectives and deeper understandings of your community and the world, as well as challenge previously held assumptions about the world and its inhabitants. You will also explore a wide variety of topics with an eye toward discovering new interests and uncovering new talents.

General Education courses teach basic skills as well as broaden a student's knowledge of a wide range of subjects. Education is much more than the acquisition of facts; it is being able to use information in meaningful ways in order to enrich one's life. General Education courses focus on communication, creativity, and critical thinking skills and along with the substance of the course's information, an appreciation of the esthetics of the area of study and its connection to the larger social web.

This course fulfills the Physical Sciences requirement for General Education.

At least one major assignment will offer guidance in writing competency, including organization, content (supporting claims with evidence), and mechanics (punctuation, grammar, spelling).

General Education ePortfolio

Each student in General Education courses at SLCC will maintain a General Education ePortfolio. Instructors in every Gen Ed course will ask you to put at least one assignment from the course into your ePortfolio, and accompany it with reflective writing. It is a requirement in this class for you to add to your ePortfolio.

Your ePortfolio will allow you to include your educational goals, describe your extracurricular activities, and post your résumé. When you finish your time at SLCC, your ePortfolio will then be a multi-media showcase of your educational experience.

For detailed information including a Student ePortfolio Handbook, video tutorials for each ePortfolio platform, classes, locations and times of free workshops and other in-person help, visit www.slcc.edu/gened/eportfolio.