

## Astronomy 001 Online Summer 2017 Syllabus (Sections 8014/8034)

**Instructor:** Elizabeth Bell

**Email (best way to contact me):** [bellea@wla.edu](mailto:bellea@wla.edu)

**Classroom:** online

**Office Hours:** email only

**Prerequisite:** None

**\*\*Course dates 06/12/17 – 07/23/17\*\***

**REQUIRED:** Astronomy (openstax)

**Download your free copy here (select pdf download):**

<https://openstax.org/details/books/astronomy>

**ASTRON 001 Elementary Astronomy (Online)**

**Units: 3.00 - UC:CSU, May Be Taken Once for Credit**

Astronomy 001 is a conceptual survey of the basic principles and science of astronomy. Topics include the history of astronomy, the solar system, the Sun, galaxies, cosmology, and life in the universe. This introductory course is designed for the non-technical student.

### **Student Learning Outcomes**

#### **INSTITUTIONAL OUTCOMES (SLOs):**

A. CRITICAL THINKING: Analyze problems by differentiating fact from opinions, using evidence, and using sound reasoning to specify multiple solutions and their consequences.

G. CULTURAL DIVERSITY: Respectfully engage with other cultures in an effort to understand them.

F. TECHNICAL COMPETENCE: Utilize the appropriate technology effectively for informational, academic, personal, and professional needs.

#### **ASTRONOMY COURSE OUTCOMES (SLOs):**

1. Students will be able to appropriately utilize the equipment and skills needed to make observations of solar systems, stars and galaxies, and universe processes and analyze this data by techniques used by astronomers and other scientists.

2. Students will be able to utilize communications skills (written/oral/web based, etc) to effectively describe and report on conclusions, conceptually and through real data collection, based on these results.

This is a short-term class. There are many chapters to cover. You will need to read and do all assignments for approximately three to four chapters (or portions thereof) per week. Plan on spending about 6-10 hours per week on this class as you will also have to read your own lectures in lieu of attending class. You will have access to one module worth of work at a time, and will have 1.5-2 weeks to complete each module. There are no make-up exams or late work accepted. Exceptions (rare) will be made on a case-by-case basis.

In addition to your homework assignments and exams, you will be required to do weekly 'check in' assignments. This is so I know you are still active in class. Check for 'check in' assignments in the 'announcements' folder. These assignments will be completed in the discussions section.

Note: As this class has no prerequisite, we will not focus on the mathematical sections in your book. Those are for your information only. We will strictly focus on the conceptual. (With the exception of an introduction to scientific notation so that you can learn to read very big and very small numbers). I do, however, recommend you are at least at the English 101 level and are comfortable with arithmetic.

**Grading Scale: A (90 – 100)%, B (80-89)%, C (70-79)%, D (60-69)%, F(0-59)%**

Grading is based on a point system. All assignments, and exams will have points associated with them. You can calculate your grade in the class at any time by dividing the total number of points you have earned by the total number of points that have been assigned, then multiplying that result by 100. This will give you your course percent.

**Please read this entire syllabus prior to beginning your course. The book for this class is download only. The bookstore has had no time to order copies for you. It is, however, free. You need adobe reader in order to view the pdf of the book.**

**Getting started:**

1. View the Syllabus
2. Submit an introduction in the DISCUSSIONS forum TAB ON THE LEFT.
3. Go the modules folder and open 'Module 1 assignments'. IN THE MODULES SECTION ON THE LEFT
4. Go through the assignments and follow instructions.
5. If submitting upload assignments, please do so in word format so that I can easily add comments and return them to you.
6. If you are having difficulty understanding a concept from the chapter, POST QUESTIONS IN THE STUDENT DISCUSSION FORUM.
7. If you are having technical difficulties private message me (Remember the subject line! I get MANY emails on that address and do not want to miss something important from you.)
8. Use your study guide (which I will not collect) to help you study for the quizzes, midterm, and the final exam.

## Tentative Chapter Content and Schedule

### **Astronomy 001 Modules – 6 weeks total**

#### **Module 1 – Foundations of Astronomy (1.5 weeks total):**

Unit 1: The science and History of Astronomy

Unit 2: The sky

Unit 3: The Tools of Astronomy

#### **Module 2 – Our ‘corner’ of the Universe (1.5 weeks total):**

Unit 4: Our Local Address

Unit 5: The Solar System

Unit 6: The Planets

Unit 7: The Smaller Worlds

#### **Module 3 – The Stars (1.5 weeks total):**

Unit 8: Our Star

Unit 9: Measuring the Stars

Unit 10: The Lives and Deaths of Stars

#### **Module 4 – Galaxies and The Universe (1.5 weeks total):**

Unit 11: Galaxies

Unit 12: The Beginning and the End of the Universe

Unit 13: Are We Alone? Life in the Universe

**All assignments are due at the end of the module period (see dates listed on ETUDES).**

**As everything in the class is online, I suggest you work through this checklist to see if online is right for you:**

- Do you have access to a computer with cable or high-speed internet access? (Note: You may use campus computers for free during normal business hours)
- Are you able to work (for the most part) independent of the instructor? You will be required to read the book and lecture notes and do assignments based on the readings. The instructor will be available online or on campus to help with specific questions and help with homework.
- Are you computer literate? You must know how to send and receive e-mail, including attachments, follow online instructions, navigate web pages, etc...
- Are you comfortable enough with reading and English to work through your text?
- Are you able to read PowerPoint files (either through Microsoft Office or Open Office)? Do you have Flash and Adobe Reader installed? (If not you need to install these three programs to be able to work through the class)

**Please do not hesitate to contact me if you have any questions as you proceed through the class. Welcome to Astronomy 001!**

**Professor Bell**  
[bellea@wlac.edu](mailto:bellea@wlac.edu)

**PRIVATE MESSAGE ME IN ETUDES FOR ANY COMMUNICATION. THAT WAY YOUR MESSAGES STAY IN YOUR HOME PAGE AND THEY WON'T GET LOST.**

**\*\*If you are a DSPS student, let me know in the next couple of days for accommodations\*\***

Welcome to astronomy 001!