

**Syllabus Astronomy 001– WLAC – Fall 2015 - Section# 0370**  
**Professor Elizabeth Bell**

[bellea@wlac.edu](mailto:bellea@wlac.edu) (Please write 'on campus Astronomy' in subject line)



**ASTRON 001 : 001**

**Transfer: UC:CSU**

**Units: 3**

**DESCRIPTION:** 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.

**CLASS**

**MEETINGS:**

Thursdays from  
5:15 pm –  
8:25 pm in  
MSA 003

**SEMESTER  
DURATION:**

Class - Starts  
8/31/2015,  
Ends  
12/20/2015

**OFFICE:** MSB 224    **PHONE:** 310-287-4585    **\*\* email is best \*\***

**HOURS:** M – 1:30 pm to 2:45 pm, T/Th – 10:30 am – 11:00 am, and  
2:30 pm to 3:00 pm, Th 8:30 pm to 9:15 pm (and by appointment)

**REQUIRED MATERIALS:**

- TEXT - **Understanding Our Universe** 2nd edition, by Stacy Palen (Also allowed: Explorations in Astronomy, by Thomas Arny (6<sup>th</sup> or 7<sup>th</sup> edition))
- SCANTRONS – Four scantrons 886-E
- PENCILS / PENS / HIGHLIGHTERS
- TEXT (or similar not more than four years old)-\*some assignments come from text.
- CALCULATOR – an inexpensive four-function calculator is required for the course. Phone calculators may not be used on exams.

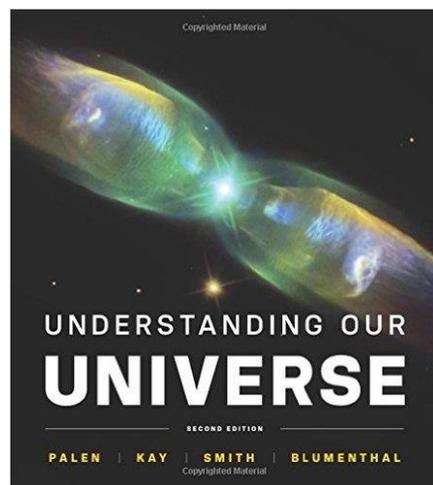
**\* you may have to copy assignment questions if you do not purchase the text**

**PREREQUISITE:** None

**ADVISORIES:** English 021 (English Fundamentals), and Math 105(A,B,C) Arithmetic

**ISBN-10:** 0393936317

**ISBN-13:** 978-0393936315



## **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 DIVISION PROGRAM OUTCOMES (SLOs):**

1. Develop an understanding of how science works and specifically how it is used to discover knowledge of the physical universe. (meets institutional outcome A)
2. Recognize and explain basic concepts and principles of physics which underlie and are used to conduct astronomy. (meets institutional outcomes A and F)
3. Differentiate between the scientific method and pseudo-science as a means to explain the way the universe works. (meets institutional outcomes A and F)
4. Appreciate the historical and philosophical foundations of astronomy. (meets institutional outcome G)
5. Investigate and absorb information available outside the textbook to appreciate how our knowledge of astronomy changes. (meets institutional outcomes A and F)
6. Differentiate among possible models of the universe. (meets institutional outcomes A and F)
7. Write brief, focused, logically coherent responses to conceptual (and quantitative – honors) questions covering the major topics of astronomy. (meets institutional outcomes A and F)
8. Come away with a broader perspective of our place in the universe. (meets institutional outcomes A and G)

**\*\*Important!!\*\*** As in each meeting, as we cover a week's worth of material, if a student misses more than one complete week's worth of class the student may be dropped.

**Grades will be based on the following:**

Attendance	up to 3% extra credit*
Activities	5 points each
Midterm 1 (1)	50 points
Midterm 2 (1)	50 points
Midterm 3 (1)	50 points
Final (1)	50 points

**Grading Scale:**

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

**No make-up assignments!****Final must be taken to receive credit for the course.****Only the lowest midterm will be dropped.****\*Extra Credit**

- You may earn up to 3% (of total grade) extra credit for the course). Attendance: 3% (perfect attendance), 2% (1 absence), 1%(2 absences). Tardy counts as an absence in extra credit calculation. **You will also be marked tardy if you forget to sign in, even if you are present that day.**

**Tentative Schedule**

**Note:** some activities may be assigned as homework if there is not enough time during class.

3-Sept	Introduction / The Cosmic Landscape	
10-Sept	The Cycles of the Sky / Phases of Moon and Eclipses	
17-Sept	The Rise of Astronomy / Time in Astronomy	*REVIEW FOR TEST #1*
24-Sept	Gravity and Motion	<b>TEST #1</b> (no gravity and motion)
1-Oct	Light and Atoms	
8-Oct	Telescopes	
15-Oct	Survey of the Solar System	*REVIEW FOR TEST #2*
22-Oct	Inner and Outer Planets / Meteors, Comets, Asteroids	<b>TEST #2 (no Inner /outer planets/ meteors, comets, asteroids.)</b>
29-Oct	The Earth and The Moon	
5-Nov	The Sun	
12-Nov	Stellar Properties / H-R Diagram	*REVIEW FOR TEST #3*

19-Nov	Stellar Evolution/ Milky Way Galaxy	<b>TEST #3 (no stellar evolution)</b>
26-Nov	No Class *Holiday*	
3	Cosmology / Hubble Expansion	
10	Einstein's Theories of Relativity	
Dec 17	<b>Final Exam</b>	<b>5:45 pm - 7:45 pm</b>

## **DEADLINES LAST DAY TO**

- Appeal Priority Registration March 25
- Prerequisite Clearance/Challenge Petitions Aug 21, 2015
- Add/Audit Traditional Classes
- Online: Aug 30, 2015 In-person: Sept 11, 2015
- Drop a Class with a refund/no fee owed Sept 11, 2015
- Drop a Class without a "W" Sept 11, 2015
- Drop a Class with a "W" Nov 20, 2015

## **CAMPUS CLOSED**

- Labor Day: Sept 7
- Veterans Day: Nov 11
- Thanksgiving: Nov 26-29

## **RECOMMENDED STEPS:**

1. Skim the chapter before presented in class
  - a. Read the illustrations and tables
  - b. Make note of main topics
2. Take any board notes in class (ppt lectures will be available for review on ETUDES)
3. Have the lecture open and the book available, and fill out the study guide for the chapter
4. Do the chapter homework
5. Repeat for each chapter
6. Study the guide and homework for quizzes (these are closed notes and will not be as difficult as the midterm and final)
7. Make sure you complete the homework and study guide to use on the midterms and final
8. Check ETUDES at least twice per day for important announcements & course material.

## **YOUR ETUDES PAGE:**

We will be using an ETUDES page for the class homepage. I will post the syllabus, announcements, the ppt presentations, and reminders on your page. You will automatically be enrolled within 48 hours of registering for the class.

To access your page visit the site:

<http://www.wlac.edu/online/login.asp>

Your Etudes User ID is your Student ID Number (not your SS#)

Example: Jose Garcia has the following Student ID: 880123456

Based on this example, Jose's ETUDES User ID would be 880123456

ETUDES Password (first time login)  
MonthDay of birth in school records

Example:

Jose Garcia's birthday is April 11th, 1982 (04/11/82). Based on this example, Jose's ETUDES Password would be 0411

When you log in for the first time Etudes will ask you to change your password.

**TO SUCCEED AND OBTAIN A GOOD GRADE IN THIS CLASS – YOU MUST:**

1. Attend class regularly, attending all class sessions. Get to class on time, every time, and stay the whole time. You are responsible for information, test announcements, date changes, etc. – whether or not you are present.
2. No make ups! DON'T SHOW UP SICK (speak to me individually in case of emergency).
3. You are responsible for credit and enrollment status. You are responsible to drop the class – if you choose not to continue. (Note: you may be excluded if you are consistently absent or tardy). Students failing to follow the correct procedure for withdrawal will receive a grade "F" for the course, which will affect your GPA. Ask your program coordinator about drop days.
4. Each student is expected to do his/her own work on all tests/quizzes/midterms/finals. Academic dishonesty, or cheating, will result in a zero grade on that assignment (which will not be dropped), plus (in cases of continued academic dishonesty) a filing of a report with the Science Chairperson or Dean of Students giving your name and describing the incident. You may work in groups of up to three students for homework, study guides, and activities.
5. Expect to work hard. Plan to read and study about 5 hours per week and attend all classes. Do not wait until the last minute to start assignments or study. This will result in incomplete assignments and you will not have sufficient time to absorb the material.
6. Please turn off your cell phone before entering the class. You may use them during short class breaks.
7. In taking this class, you are agreeing to abide by all the rules and regulations stated above – including dates of tests and final. This means that you do not schedule anything else on test days or ask for an extension if you plan an extended weekend vacation.
8. Welcome to Astronomy 100!



