

ASTR1 - Astronomy

Course Syllabus Fall 2018

Instructor/Course Info: Jorge Ramirez Instructor of Mathematics, Physics and Astronomy
Long Beach City College Department of Mathematics & Physical Science
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Office Hours – M-Th 9:30-10:45 V222
ASTR1 – Astronomy (70180) M/W 8:00am – 9:25am LAC-D326

Prerequisite: There are no prerequisite requirements. Algebra will be helpful for several assignments but is not essential as this will be a non-mathematical approach to astronomy. Reading of the text and efficient study habits are vital. Although not required students will benefit from READ and/or LEARN courses to assist with successful study skill techniques.

Course Description: This course is an introduction to astronomy. Topics to be covered include the physical nature of the solar system, stars and stellar systems, galaxies and the universe as a whole, including not only their current state, but also theories of their origin and evolution.

Student Learning Outcomes (SLO):

1. Synthesize a cosmic perspective- a broad understanding of the nature, scope, and evolution of the Universe, and where the Earth and Solar System fit in.
2. Examine a limited number of crucial astronomical quantities, and analyze both the nature, and subject, of appropriate physical laws.
3. Examine the history of astronomy and the evolution of scientific ideas.

Text: *Astronomy, Openstax* <https://openstax.org/details/books/astronomy>

Optional: The Essential Cosmic Perspective, By Bennett, Donahue, Schneider & Volt, 7th edition.

Homework will be checked prior to each exam. Students are encouraged to work together on discussion questions and will be required to collaborate in groups for activities. However, each student must right up solutions in their own words.

Assignments will include visiting one observatory such as Griffith, Mount Wilson, Palomar or the Rio Hondo College observatory. You must submit a one-page write up on the object observed, telescope and what you learned.

Make-up Policy: The simplified version is **No make-ups** on short notice or after the due date. The formal policy is as follows, Make-up policy for Exams: Prior arrangements must be made at least 2 weeks in advanced with instructor, if the student has a serious and compelling reason (documentation is required). If any of the above requirements is not met, a score of zero will be issued for the missed exam. Make-up policy for assignments and activities: No make-up for in-class activities; zero to half credit for late homework may be given with prior notification.

Attendance policy: Attendance is the responsibility of the student. Students are expected to demonstrate respect for the instructor and other students. This includes but is not limited by interfering with the rights of others to listen and participate or harassing others in anyway. Additionally, No cell phone use during class, No entrance/exit while planetarium projector is in use and No food/drinks/gum allowed with the exception of bottled water. Absences do not excuse due dates (See make-up policy). A little Advice: Show up, take notes and do the homework.

Student Services: The college and myself are eager to assist. If you have a college verified disability, you can notify the DSPS office in advance for needed accommodations. Additionally, if you are dealing with homelessness, hunger, physical or emotional distress the college has free services such as the college food bank and student health services. In the case of a physical disability an alternative extra credit assignment can be arranged with instructor approval.

Cheating/Plagiarism:

The Long Beach Community College District maintains an environment in which academic honesty is expected; academic dishonesty, cheating and plagiarism are not tolerated. Please see Administrative Regulations on Academic Honesty, section 4018. Any student in violation of this code and policy in any assignment or examination related to this course shall be subject to the options specified in the policy statement. DON'T DO IT; STUDY, STUDY, STUDY and you will be fine.

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Course Schedule Fall 2018

Grading Criteria:

Homework/Activities	200 points
<u>Exams - 4 (100 pts. ea.)</u>	<u>400 points</u>
Total 600 points	

Grade Scale:

"A" \geq 540	90%
539 \geq "B" \geq 480	80%
479 \geq "C" \geq 420	70%
419 \geq "D" \geq 360	60%
359 \geq "F"	

Weekly **PROJECTED** Schedule*

Part I History & The Sky

Week 1 (Aug. 27/ 29):	CH1 A Brief Tour	CH2 The Sky
Week 2 (Sept. 3/ 5):	Holiday	CH3 Gravity
Week 3 (Sept 10/ 12):	CH4 Earth & Moon	CH5 Spectra
Week 4 (Sept. 17/ 19):	CH6 Telescopes	Exam 1: Part I Ch 1-6 (W, Sept19)

Part II The Solar System

Week 5 (Sept. 24/26):	CH7 Intro to S.S.	CH8 Earth
Week 6 (Oct. 1/3):	CH9&10 Terrestrial Planets	CH10&11 Jovian Planets
Week 7 (Oct. 8/9):	CH12 Moons	CH13 Outer S.S
Week 8 (Oct. 15/17):	CH14 Origin of S.S.	Exam 2: Part II Ch 7-14 (W, Oct17)

Part III Stars

Week 9 (Oct. 22/25):	CH15&16 The Sun	CH17 Analyzing Starlight
Week 10 (Oct. 29/31):	CH18&19 Celestial Census	CH20 Gas & Dust
Week 11 (Nov. 5/7):	CH21 Birth of Stars	CH22&23 Life & Death of Stars
Week 12 (Nov. 12/14):	Holiday	Exam 3: Part III Ch 15-23 (W, Nov12)

Part IV Galaxies & Cosmology

Week 13 (Nov. 19/21):	CH24 Black Holes	CH25 The Milky Way
Week 14 (Nov. 26/28):	CH26 Galaxies	CH27 Quasars and Massive Black Holes
Week 15 (Dec. 3/5):	CH28 Evolution of Galaxies	CH29 The Big Bang
Week 16 (Dec. 10/12):	Exoplanets & Life in the Universe	Exam 4: Part IV Ch 24-29 (W, Dec12)

***This guideline is an estimate and subject to change. Any modifications will be discussed in class. If you do not attend class it is your responsibility to obtain any changes from the instructor or a classmate.**

Important dates

Final Exam Date: Wednesday, Dec 12th

Sept 9, 2018: last day to **Drop without** a "W" appearing on transcript

Nov 18, 2018: last day to **Drop** a class with a "W".

Classmate Info

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