Astronomy 1308, Spring 2015

(CRN 21101)
WW 3:00 – 4:20 PM, UGCL 128

Instructor: Jorge A. López

Coordinates: PSCI 311, 747-7528, jorgelopez@utep.edu

Office hours: Without appointment: MW 12:00-3:00 PM, 4:30-5:00

With appointment: TR 11:00-12:00

Textbook:

- *Lecture-Tutorials for introductory astronomy*, 3rd edition, by E. Prather et al.
- *Discovering the Universe*, 8th or 9th edition, by Comins and Kaufmann

Other references and materials:

- Scientific calculator
- Green Scantron sheets for quizzes and final exam

Course evaluation:

- Weekly quizzes (lowest two grades to be dropped) 80%
- Comprehensive final exam 20%

Quizzes are of 20 min of duration, given in class every Wednesday in the last 20 minutes of class. Final exam is a comprehensive written test covering chapters 10-16.

There will be no makeup quizzes; instead the lowest two test grades will be dropped**.**
If you miss more than two quizzes and have proper justification (written evidence of medical urgencies, death in family, military duty, etc.) please contact the instructor to arrange for a re-test.

Calendar: Classes begin: January 20 Course drop deadline: April 6
Last day of classes: May 7 Final exam: Mon. May 11, 1:00–3:45 PM

Course overview

- Chapter 10: Main features of the Sun, atmosphere, Sun spots and magnetic fields, interior, thermonuclear fusion.
- Chapter 11: Main features of stars, magnitudes, stellar distances, temperatures of stars, spectral classification, the HR diagram, luminosity classes, binary systems and stellar masses, main sequence stars.
- Chapters 12 & 13: Star formation, main sequence, variable stars, evolution of low and high-mass stars, Chandrasekhar limit, red giants and super-giants, white dwarfs, supernovae, neutron stars, black holes.
- Chapter 14: Black holes, relativity theories, inside a black hole, evidence for black holes, gamma ray bursts.
- Chapters 15 & 16: The Milky Way galaxy, Galactic components, stellar populations, orbits of stars, dark matter, open and globular clusters, interstellar medium, galaxies, the Local Group, Hubble's law.

Official Statements

Prerequisite Courses:	**ASTR 1307 or Instructor approval**
Course Objectives (Learning Outcomes):	**Students will learn main features of stars, magnitudes, stellar distances, temperatures of stars, spectral classification, the HR diagram, luminosity classes, binary systems and stellar masses, main sequence stars, star formation, main sequence, variable stars, evolution of low and high-mass stars, Chandrasekhar limit, red giants and super-giants, white dwarfs, supernovae, neutron stars, black holes, the Milky Way galaxy, Galactic components, stellar populations, orbits of stars, dark matter, open and globular clusters, interstellar medium, galaxies, the Local Group, Hubble's law, active galaxies, super-massive black holes, quasars, the Big Bang, dark energy and the fate of the universe.**
Course Activities:	**Class will be composed of two 1.5-hour lectures with the instructor.**
Assessment of Course:	**Assessment will be through weekly quizzes and a final exam.**
Grading Policy:	**Grade will be determined based on weekly quizzes (80%), and one final exam (20%). Grade corrections of individual quizzes should be made within a week of receiving them, no grade changes of individual quizzes will be allowed after the end of the semester.**
Make-up Policy:	**Quizzes. Lowest two grades of the quizzes will be dropped. There will be no make-up quizzes.Labs.**
Attendance Policy:	**Attendance is not taken into account for the grade, but not attending the class will result in missing quizzes.**
Academic Integrity Policy:	**Any student who commits an act of academic dishonesty is subject to discipline. Academic dishonesty includes, but is not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, and any act designed to give unfair advantage to a student or the attempt to commit such acts. Proven violations of the detailed regulations, as printed in the Handbook of Operating Procedures, and available on the homepage of the Dean of Students at www.utep.edu/dos, may result in sanctions ranging from disciplinary probation, to a failing grade on the work in question, to a failing grade in the course, to suspension or dismissal, among others.**
Civility Statement:	**During class, please do not eat, sleep or read newspapers or any other material not related to class. Turn off cell phones, ipods, and any other devices which might disturb class. Use computers and tablets only for class purposes, and do not talk excessively (definition of "excessive" is up to the instructor)**
Disability Statement:	**If you have a disability and need classroom accommodations, please contact The Center for Accommodations and Support Services (CASS) at 747-5148, or by email to cass@utep.edu, or visit their office located in UTEP Union East, Room 106. For additional information, please visit the CASS website atwww.sa.utep.edu/cass.**
Military Statement:	**Students being called for military duties need to contact the instructor as soon as possible.**
Drop deadline	**The College of Science will not approve any drop requests after the deadline date.**

TENTATIVE CALENDAR

WEEK	CONTENT	OBSERVATIONS	QUIZ
1/19-23	Intro + Ch. 10.1-6	Monday is a Holiday	No quiz on first week
1/26-30	Ch. 10.7-9, Ch. 11.1		1: Ch. 10, Sec. 1-6
2/2-6	Ch. 11.2-6		2: Ch. 10, Sects. 7-9
2/9-13	Ch. 11.7-9; 10-12		3: Ch. 11, Sects. 2-6
2/16-20	Ch. 12.1-2; 3-4		4: Ch. 11, Sects. 7-12
2/23-27	Ch. 12.5-8; 9-11		5: Ch. 12-1-2; 3-4
3/2-6	Ch. 12.12-14; 15, 13.1		6: Ch. 12.5-8; 9-10
3/9-13		Spring Break	
3/16-20	Ch. 13.2,3,4,5,6;7,8,9		7: Ch. 12.12-15, 13.1
3/23-27	Ch. 13.10-17		8: Ch. 13.2-9
3/30-4/3	Ch.13.tutorial,14.1,2;3-5	Drop deadline: 4/6	9: Ch. 13.10-17
4/6-10	Ch. 14.6,7,8,9,10;11,15.1		10: Ch.14.1-5
4/13-17	Ch. 15.2,3,4;5,6		11: Ch. 14.6-11, 15.1
4/20-24	Ch.15.7, 16.1,2,3,4;5,6,7,8		12: Ch. 15.2-6
4/27-5/1	Ch. 16. 9, 10 …		No quiz
5/4-8	Review	5/8 is dead day	No quiz
5/11-15		Final exam: Monday May 11, 1:00–3:45 PM	