Astronomy 1304 Syllabus
Spring - 2015

Class Hours

MWF at 2-2:50 PM, Planetarium, Science Building Room 125

Instructor

Dr. Kent Montgomery (Office: Science Building 148, phone 903-468-8650, email:kent.montgomery@tamuc.edu)

Office Hours: M-Th 9-10 am

Text

Recommended

21st Century Astronomy, 4th Edition by Kay, Palen, Smith and Blumenthal

Course Description

The goal of this course is to give the students a broad understanding of the solar system and the methods astronomers use to study the solar system. This course will also focus on simple observations from earth and how these observations have changed our view of our place in the universe. The first part of this course will describe what we can observe with the unaided eye and how these simple observations have been used to create models of the solar system. It will also include a brief historical overview of the significant astronomical events and people in the past. The second part of this course will focus on the properties of light and matter and the use of these principles to deduce the size, speed, composition, and origin of solar system bodies. The third part of the course will be a detailed look at the sun, planets and other minor solar system bodies such as comets and asteroids.

Web Enhanced Course

Astronomy is a very visual science and the course will contain many pictures. To allow students access to these pictures and the PowerPoint presentations used during lectures the course has been web enhanced. Students will also have access to past tests to be utilized for test preparation. To access the web enhanced portion students will need to login to MyLeo and then go to eCollege.

Homework and Extra Credit

Once during the semester the class will go out to the observatory located 5 miles off campus. During this time students will be using telescopes to explore heavenly objects like planets, star clusters, double stars, nebulas and the Moon. The date of this extra credit opportunity is dependent upon the weather and phase of the Moon.

This spring we will also have an opportunity to view part of a total lunar eclipse. It is happening early in the morning on Saturday the 4th of April. Weather permitting the observatory will be open for viewing and extra credit will be given to those that come out to the observatory.

Homework will be given throughout the semester and most of them will be due the next lecture at the beginning of class. The problems will be used as practice for

tests, but no credit will be given without showing work. The homework will have specific due dates, any assignment received after this date will lose 2 points a day from the total of 10 points per assignment. The lowest homework grade will be dropped.

The homework grade will account for 15 percent of your final grade.

Tests and Final

Three exams will be given during the semester and a final will be given at the end of the semester. The three tests during the semester will cover only the material leading up to each test. The final will be comprehensive covering both the material at the end of the semester as well as material on the first three tests. Part of the final will also include constellations and stars learned during the class and will be given during the last scheduled laboratory class.

Test Dates (Tentative)

1st Test	-	February 18th
2nd Test	-	March 25th
3rd Test	-	April 29th
Final	-	May 11th at 1:15 pm (Monday)

Grading

Homework and Labs 15%
3 Tests 20% Each
Final 25%

Your grade will be determined using the following scale:

90% < A
80% < B < 90%
70% < C < 80%
60% < D < 70%
F < 60%

Attendance

Regular attendance is essential to doing well in this class. Many of the topics covered will only be covered in lecture and not in the book. For a student to do well in this class the most valuable thing they can do is never miss a lecture. If a student has excessive absences they will be referred to the Dean's office and may be involuntarily dropped from the class.

Syllabus Requirement

Faculty are required to include the following statement in their syllabi: "All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment." (See Student's Guide Handbook, Policies and Procedures, Conduct)

Students with Disabilities:

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services
Texas A&M University-Commerce
Gee Library Room 132
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
StudentDisabilityServices@tamuc.edu

Lecture	Topic	Book Ref.
1	Overview of Class - Intro to Solar System	1.1
2	Constellations - Seasons	1.3-1.4
3	Timekeeping	----
4	Phases of Moon	1.5
5	Eclipses	1.5
6	Ancient Greek Astronomy	2.1-2.2
7	Copernicus	2.3
8	Copernicus - Kepler	2.5
9	Galileo-Newton	2.4, 2.7
10	Basic Physics of motion	2.7-2.8
10	Electromagnetic Spectrum	3.1-3.3
11	Blackbodies – Doppler Effect	3.4-3.5
12	Spectroscopy	4
12	Telescopes and Detectors	5
13	Radio Telescopes – Interferometry	5.5-5.6
13	Sun as a Star	16
14	Terrestrial & Jovian Planets, Solar System Formation	6
15	Mercury	8
16	Venus	9
17	Moon	8
18	Earth	7
19	Mars	10
20	Jupiter	11
21	Saturn	12
22	Uranus - Neptune	13
23	Moons in the Solar System and Dwarf Planets	11.5, 12.5, 13.5, 14.3
24	Asteroids	14.1
25	Comets - Meteors	14.2, 14.4
27	Other Worlds and Other Life?	28