ASTR 1104L 01L Astronomy of the Solar System

COURSE SYLLABUS: Fall 2014

WHO I AM

Instructor: Ms. Katie Hesterly
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Please include "Astr 1104 Lab" in the subject line.
Course Location and Time:
M 3:00 p.m. – 5:50 p.m. in Science 146 or the Planetarium

WHAT THIS COURSE IS ABOUT

Course Description:

Most people learn difficult subjects more by doing rather than by reading of listening. You can listen to all the lectures and look at all the pictures in the world about how to make fondant cakes (like on Ace of Cakes), but until you screw up several times in the kitchen, you won't actually be able to do it.

Astronomy is the same way. You will learn more by doing than anything else in the course, so let's do some experiments and see how this works in real life!

Student Learning Outcomes:

1. You will apply theoretical knowledge from lecture in a real-world setting.
2. You will collaborate with fellow students on laboratory experiences.
3. You will collect accurate data during laboratory experiences.
4. You will evaluate the results of experiments in light of your calculated data.
5. You will identify the primary constellations, stars, and deep sky objects of three seasons.

WHAT YOU WILL ABSOLUTELY NEED

Materials – Textbooks, Readings, Supplementary Readings:

Required: Lab Manual (Located in campus bookstore)

Suggested: Pencil or pen (black or blue ink only), calculator

Course Prerequisites*:* None

HOW THE COURSE WILL WORK

INSTRUCTIONAL METHODS / ACTIVITIES / ASSESSMENTS

Lab

Each person will obtain a lab packet from the campus bookstore to be turned in after your group completes the lab. You can earn up to 10 points on this packet, equally weighted based on completion of the experiment, evidence of thought in answers, and correctness of your interpretations. Since labs often do not produce exactly the expected results, significant leeway will be given on the results. Main points: be neat, answer all questions, and make sure that your answers show evidence of thought.

Some labs may require group work. If so, the size of the group will vary from individual work in planetarium labs up to 3 people in room 146.

Participation

Participation is required for each lab. Points will be deducted for "supervising" your lab group by watching everyone else work, and not contributing to either the work or the thought process. Points are awarded and deducted at the discretion of the instructor.

Exams

There is one final exam at the end of the semester over the constellations discussed in the night sky labs.

Grading

Grading will be done on an absolute scale with no competition. Your lowest lab score will be dropped. So, if you miss a single lab, your grade will not be hurt. However, you will still be responsible for being prepared for the following week's lab.

Grading is weighted by assignment using the following weights:

Lab Packet	80%
Participation	20%

Lab packets are worth 10 points each. The final exam will be worth 25 points.

TECHNOLOGY YOU WILL NEED

This course is a technology enhanced course, meaning that some materials (like lecture notes, solutions, exam reviews, etc) are only available online. You need to be comfortable with basic computing sills and web browsing.

You will need the following technologies and software to be successful in this course:

- Internet access / connection – high speed recommended (not dial-up)
- Access to a computer (Windows or Mac are okay)
- Software to read PDF files (such as Acroread or Preview)

HOW TO CONTACT ME AND STAY CONNECTED

Interaction with Instructor

Email: I can be reached by email at khesterly@leomail.tamuc.edu. Please put "ASTR 1104 Lab" in your email subject header. It may take up to 24 hours to send you a response (48 hours on the weekend or holidays). If you don't hear back from me in that time, please send another email or give me a call. I assume you check your campus email daily, so if I send out a class email, I'll assume you read it.

Office Hours: During office hours you can ask questions about course material, ask about homework, see your current grade, or ask other questions about the class or physics in general. Office hours work best if you have your textbooks, class notes, and lecture tutorials with you.

It's important to realize that office hours are *not* just for students who are having problems in the course. If you are uncertain about anything please visit, email, or fax before your small problems grow into big ones. I am also the teaching assistant for the lecture component of this lab. I am available for questions regarding either course.

If you want to talk but cannot come during office hourse, please contact me to schedule and appointment or stop in. I am usually at school during the day but setting an appointment will guarantee that I will be in my office and have plenty of time to talk. You are free to stop by anytime. My door is always open but if you do not have an appointment nor is it a scheduled office hour, please understand if I'm not available to talk that instant.

RULES, RULES, RULES (UNIVERSITY POLICIES)

Lab Safety

While our astronomy labs are not as dangerous as working with chemicals or venomous animals, you still must be safe in lab. We ask that you abide by the following rules. If you break the following rules, you may be asked to correct the situation or even be asked to leave the lab.

1. No eating or drinking in the lab.
2. When in the planetarium, be careful moving around after the lights are out.
3. When in the planetarium, ABSOLUTELY NO CELL PHONE USE AT ALL!!!!
4. No horseplay in the lab.
5. Don't use any apparatus in any way not mentioned in the lab packet. Other courses use the classrooms and may leave their equipment out for multiple lab sections. Please do not touch their equipment.
6. If you have long hair or dangling jewelry, be very cautious around any apparatus.
7. Wear close-toed shoes.
8. Wear long pants.
9. If you desire to have safety glasses or gloves for any experiment, these are available. Ask your instructor.
10. Follow other lab rules posted near the door inside the classroom.

Academic Integrity

A major goal of this and most every university course is for you to learn and appreciate subject material. Academic dishonesty ("cheating") actively prevents you from achieving this goal. Academic dishonesty is taken seriously by the University and by me, and **<u>will not be tolerated</u>**. (See the TAMU-C Code of Student Conduct and the TAMU-C Procedures A 13.04, 13.12, and 13.32.)

This conduct is not only considered wrong in this course and at this University, but also in the real worlds.

Unethical student conduct includes:

- **Plagiarism**, or copying the words of others with the intent of making it look like your own. Whether you use someone else's phrases word for word, or whether you try and change a few words, or even if you just borrow someone else's original idea and don't give them credit, that's unethical. Use your own words whenever possible, give credit to wherever you got an idea, and put direct quotes inside quotation marks.
- **Cheating** involves trying to trick me or others into thinking you did work that you really didn't do, or into thinking you know what you really don't know. This can include stealing exams, changing your answers on a graded exam or assignment and claiming it was graded wrongly, putting your name on someone else's homework, etc.
    - **Searching the internet for solutions and copying what you find is considered cheating**. <u>Searching the internet for help on a topic is okay</u>. For example, suppose a question asks "Describe the life cycle of a star that has the same mass as the sun." Typing that phrase into Google and cutting and pasting the text in the answer box is considered cheating. Typing "uniform circular motion" into Google, reading a few web pages, and summarizing the information in your own words is not cheating.
    - <u>Borrowing a previous student's homework, exams, or solution sets is considered cheating</u>. "Borrowing" includes looking at someone's submitted homework, screen shots, stealing returned homework, and so on.
- **Collusion** is working with another person to cheat. This can include copying someone else's answers to an exam or assignment, doing work for another student, buying or otherwise obtaining homework / exam solutions from any source online or off-line, or

any other instance of multiple people engaging in some form of cheating or dishonesty. Working with other students on an assignment is fine *as long* as everyone contributes and each student does their own work.

- **Any other activity that, to a reasonable person, looks wrong**. If you have any doubt whatsoever whether a certain action is considered dishonest, please ask me before engaging in the activity. There is no need to be embarrassed about asking, and I won't penalize you for asking! In this class, if you follow the maxim "it's easier to beg forgiveness than to ask permission", don't expect forgiveness to be forthcoming.

If you engage in academic dishonesty during any graded activity, you will receive no credit for that activity. More than one instance of dishonesty by a student will result in automatic failure of the course and referral of the student for disciplinary action.

For further information, search the Texas A&M-Commerce website for "academic integrity policy."

Administrative Withdrawal

Although we have the right to drop you for excessive absences, we won't do so. You have a right to get an F if you decide to quit working but don't withdraw.

Dropping the Course

A student may drop this course by logging into their myLEO account and clicking on the link labeled 'Drop a class' from the choices found under the myLEO section of the Web page.

University Specific Procedures

ADA Statement

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

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See *Code of Student Conduct from Student Guide Handbook).*

WHAT WE'RE DOING AND WHEN

The following is a tentative lab schedule. The instructor reserves the right to alter if necessary.

Dates	*Room*	*Lab*
August 25	Science 146	Introduction
Sept 1		No Lab
Sept 8	Planetarium	Constellations of the Summer Sky
Sept 15	Planetarium	Motions of the Night Sky
Sept 22	Planetarium	Motions of the Planets
Sept 29	Science 146	Kepler's Law
Oct 6	Planetarium	Fall Sky Constellations
Oct 13	Planetarium	When We Left Earth
Oct 20	Science 146	Jupiter's Moons
Oct 27	Science 146	Atmospheric Retention
Nov 3	Planetarium	Winter Sky Constellations
Nov 10	Science 146	Citizen Science
Nov 17	Planetarium	Night Sky Review
Nov 24		No Lab (Thanksgiving Week)
Dec 1	Planetarium	Night Sky Final