ASTR 1103.02L – Stars & The Universe Lab
COURSE SYLLABUS: Spring 2018

WHO I AM

Teaching Assistant: Briana Douglas
Instructor: Dr. Kurtis A. Williams, Associate Professor
Office Location: Science 145
Office Phone: 903-886-5516
Office Fax: 903-886-5480
TA Office Hours:
Sci 105, By appointment
Dr. Williams's Office Hours:
Science 145: Tues 9:30-10:30, Wednesday 9:30-10:30, or by appointment
Science 111 (Peer Learning Lab): Thurs 2:45-3:45
Course Locations and Times:
T 3:30 p.m. – 6:20 p.m. in either Science 107 or Science 125 (Planetarium)

TA's University Email Address: bdouglas5@leomail.tamuc.edu
Dr. Williams's University Email Address: Kurtis.Williams@tamuc.edu†
Please include "Tuesday Lab" in the subject line.
Preferred Form of Communication: Email
Response Time: 24 hours on business days

WHAT THIS COURSE IS ABOUT

Materials Required
None. All needed materials will be provided.

Textbook(s) Required
None.

Course Description

University Catalog Description
This lab course is designed to give students a hands-on approach to learning about stars and galaxies using techniques similar to those used by astronomers. Laboratory activities will include using the planetarium to learn the names and locations of stars and constellations, hands on experiments, and computer simulations.

Additional Course Description
Most people learn difficult subjects more by *doing* rather than by reading or 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. You will learn more by doing than anything else in the course. In this course, we present a series of labs that reinforce concepts covered in the lecture course Astr 1103 as well as learn constellations in at least three of the four seasons.

Student Learning Outcomes:

1. You will collaborate with fellow students on laboratory experiences.
2. You will collect accurate data during laboratory experiences.
3. You will evaluate the results of experiments in light of your collected data.
4. You will identify the primary constellations, stars, and deep sky objects of each season

HOW THE COURSE WILL WORK

Instructional Methods and Activities

Lab
Each individual or group will receive a lab packet on the day of the experiment to be turned in after your group completes the lab. Your group 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 interpretation. 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 and tying what we've covered in lecture into the lab.

The size of a group will vary, from individual work in the planetarium up to 4 or 5 people in room 107.

Participation
Each laboratory section has a maximum of 10 participation points you can earn. You can earn points by arriving to lab on time, remaining until your lab group is finished with the experiment, and by assisting your lab partners in the experiment. "Supervising" your lab group by watching everyone else work and not contributing to either the work or the though process does not count as participation. Points are awarded at the instructor's discretion.

Exam
During the last week of classes, you will be tested on your knowledge of the constellations, including being able to name indicated constellations, stars, and deep-sky objects. This exam counts as 25% of your course grade.

Extra Credit
No extra credit is offered. If you participate in labs, you will not need it.

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 lab.

Grading is weighted by assignment using the following weights:

Lab Packet	37.5%
Participation	37.5%
Constellation Exam	25%

TECHNOLOGY YOU WILL NEED

You need to be comfortable with basic computing skills and web browsing, and you need to have a university student computer account. You should also know how to use a scientific calculator.

HOW TO CONTACT US AND STAY CONNECTED

Interaction with Instructor

Email: Dr. Williams and your TA can be reached by email the addresses given on the front page of this syllabus. Please put "Stars & Universe 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 us in that time, please send another email or give ud a call. We assume you check your campus email daily, so if we send out a class email, we'll assume you read it.

Office Hours: Office hours are times that the instructor and TA promise to be in their office so that you can come by and talk. During office hours, you can ask questions about the labs, see your current grade, or ask other questions about the class or physics in general. Office hours work best if you have your graded lab packets 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, phone or drop into virtual hours before your small problems grow into big ones. If you are worried about what might be on the test, stop in. If you are curious about jobs and research opportunities, come by.

If you want to talk but cannot come during office hours, please contact the TA by email in order to set up an individual appointment. By setting an appointment, you both guarantee that he will be in his office and that he will have plenty of time to talk with you. You may feel free to stop by our offices any time our door is open, but if you do not have an appointment and if it is not scheduled office hours, please understand we may not be free to

talk at that instant.

RULES, RULES, RULES (UNIVERSITY POLICIES)

Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

Lab Safety

While our astronomy labs are not as dangerous as working with chemicals or venemous 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 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 lab.
5. Don't use any apparatus in any way not mentioned in the lab packet.
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 to the right of the lab door in room 107.

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 ***will not be tolerated.*** (See the TAMU-C Code of Student Conduct and the TAMU-C Procedures A 13.04, 13.12, 13.31, and 13.32.)

This conduct is not only considered wrong in this course and at this University, but also in the real world. Engaging in these activities will get you fired from a job and prevent you from getting another job.

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 phrase 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, and so on.

- ***Searching the Internet and simply cutting/pasting the text you find is considered cheating***. Searching the Internet for help on a topic is okay. For example, supose 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 "star life cycles" into Google, reading a few web pages, and summarizing the information in your own words is not cheating.
- ***Borrowing a previous student's homework, exams, or solution sets is considered cheating.*** "Borrowing" includes looking at someone's submitted homework, screen shots, stealing returned homeworks, 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 Withdrawl

Although I have the right to drop you for excessive absences, I 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 hyperlink labeled 'Drop a class' from among the choices found under the myLEO section of the Web page.

Harassment Policy

Title IX makes it clear that violence and harassment based on sex and gender are Civil Rights offenses subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, etc. If you or someone you know has been harassed or assaulted, you can find the appropriate resources here:

University Title IX Contact: James Vanbebber, 903-886-5996, James.Vanbebber@tamuc.edu†

University resource webpages:
http://www.tamuc.edu/facultyStaffServices/humanResources/title-ix/resources.aspx†

http://www.tamuc.edu/campuslife/campusServices/universityPoliceDepartment/crimePrevention/sexualAssault.aspx†

University Counseling Center: 903-886-5145,
http://www.tamuc.edu/campusLife/campusServices/counselingCenter/default.aspx†

Campus police: mailto:upd@tamuc.edu†, call 911 in emergency situations

External resources:
Crisis center of NorthEast Texas: http://www.ccnetx.org†
Know your IX: http://knowyourix.org†
End rape on campus: http://endrapeoncampus.org†
Clery Center for Security on Campus: http://clerycenter.org†
Not Alone: https://www.notalone.gov†

Incompletes

I only offer incompletes in extraordinary circumstances. Any student interested in an incomplete should contact me as soon as possible after the situation arises, and should keep in mind that I am not required to give you an incomplete and so may not offer you the opportunity. You should also know that you only have access to an eCollege course for two weeks following the final day of term.

Late Work

Missed labs cannot be made up, and you will receive a zero (remember, your lowest lab will be dropped, so one missed lab class will not affect your grade). If you fail to take the exam, you will receive a zero.

University Specific Procedures

Nondiscrimination Notice
Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

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 162
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).*

Campus Concealed Carry
Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations. For a list of locations, please refer to http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf† and/or consult your event organizer. Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

COURSE SCHEDULE

The schedule below is subject to change.

Date	*Lab*	*Room*
Tues Jan 16	No Lab	No Lab
Tues Jan 23	Exploding Universe	Planetarium
Tues Jan 30	Cosmic Calendar	Sci 107
Tues Feb 6	Winter Skies	Planetarium
Tues Feb 13	Citizen Science	Sci 107
Tues Feb 20	Spectroscopy Lab	Sci 107
Tues Feb 27	Spring Skies	Planetarium
Tues Mar 6	Luminosity Lab	Sci 107
Tues Mar 13	NO LAB SPRING BREAK	NO LAB
Tues Mar 20	Hertzsprung-Russell Diagram	Sci 107
Tues Mar 27	Black Holes: The Other Side of Infinity	Planetarium
Tues Apr 3	Transiting Exoplanet (Lego) Lab	Sci 107
Tues Apr 10	Summer Skies	Planetarium
Tues Apr 17	Expansion Rate of the Universe	Sci 107
Tues Apr 24	Constellation Review	Planetarium
Tues May 1	Constellation Exam	Planetarium