



ASTR 1303.01E Star and the Universe

COURSE SYLLABUS: Fall 2026

INSTRUCTOR INFORMATION

Instructor: **Dr. Kent Montgomery**

Office Location: Science Building room 148

Office Hours: MTWR 11 am to 12 pm

Office Phone: 903-468-8650

University Email Address: kent.montgomery@etamu.edu

Preferred Form of Communication: **email is the best way to get a hold of me**

Communication Response Time: I will respond within 24 hours but not on weekends

Learning Assistants:

Graduate Assistant:

COURSE INFORMATION

Meeting Times: The class meets Tuesday and Thursday from 2 to 3:15 pm in the planetarium room 125 in the Science building. If for some reason we can't meet in the planetarium we will meet in room 122 in the Science building.

Textbooks: No textbook is required for this course but if you should want one anyway, I recommend:

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

Course Description

Astronomy is the oldest science. For centuries humans have looked up at the sky and wondered about their place in the universe. Today we are in the midst of an explosion of knowledge regarding our place in the universe. New technology has revolutionized the way astronomers "see" the universe.

The aim of the course is to acquaint you with the objects found in the universe and how astronomers try to understand these objects and our place in the universe. We will explore the universe from the nearest star, our Sun, to nearby stellar nurseries, stellar mortuaries, distant galaxies and out to the edge of the known universe.

The syllabus/schedule are subject to change.

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 have access to all the Powerpoints used in class through the D2L interface.

COURSE REQUIREMENTS

Instructional Methods, Activities and Assessments

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 clusters, double stars and nebulas. The date of this lab is dependent upon the weather and phase of the Moon.

This fall we will also have an opportunity to view a total lunar eclipse. It is happening early in the morning on the 8th of October. 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 will be due at the beginning of the next lecture. The homework 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

There will be three midterm tests given during the semester. Each of these tests will account for 15 percent of your grade. The midterm tests will cover only the material leading to each test. The final will account for 25 percent of your grade and it will be

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cumulative, however, some questions will come from the untested material given during the last few days of class.

Test Dates (Tentative)

1 st Test	-	Thursday September 24 th
2 nd Test	-	Thursday October 22 nd
3 rd Test	-	Thursday November 19 th
Final	-	Tuesday December 8 th at 1:15 pm

GRADING

Grades will be based on four components:

3 midterm Exams	20 % each
Final Exam	25 %
Homework	15 %

Grading scale: Final Percent

A > 90
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. If you want to do well in this class the most valuable thing you can do is never miss a lecture. If a student has excessive absences they may be involuntarily dropped from the class.

TECHNOLOGY REQUIREMENTS

LMS

All course sections offered by Texas A&M University-Commerce have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are technical requirements

LMS Requirements:

<https://community.brightspace.com/s/article/Brightspace-Platform-Requirements>

LMS Browser Support:

https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm

YouSeeU Virtual Classroom Requirements:

<https://support.youseeu.com/hc/en-us/articles/115007031107-Basic-System-Requirements>

ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or helpdesk@tamuc.edu.

Note: Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

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COMMUNICATION AND SUPPORT

If you have any questions or are having difficulties with the course material, please contact your Instructor.

Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here:

<https://community.brightspace.com/support/s/contactsupport>

COURSE AND UNIVERSITY PROCEDURES/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.

University Specific Procedures

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the [Student Guidebook](http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx).

<http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx>

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum:

<https://www.britannica.com/topic/netiquette>

TAMUC Attendance

For more information about the attendance policy please visit the [Attendance](http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx) webpage and [Procedure 13.99.99.R0.01](http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx).

<http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx>

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf>

Academic Integrity

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

[Undergraduate Academic Dishonesty 13.99.99.R0.03](http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf)

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf>

[Graduate Student Academic Dishonesty 13.99.99.R0.10](http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf)

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf>

Students with Disabilities-- 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

Email: studentdisabilityservices@tamuc.edu

Website: [Office of Student Disability Resources and Services](http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/)

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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.

Campus Concealed Carry Statement

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 the [Carrying Concealed Handguns On Campus](#) document and/or consult your event organizer.

Web url:

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>

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.

A&M-Commerce Supports Students' Mental Health

The Counseling Center at A&M-Commerce, located in the Halladay Building, Room 203, offers counseling services, educational programming, and connection to community resources for students. Students have 24/7 access to the Counseling Center's crisis assessment services by calling 903-886-5145. For more information regarding Counseling Center events and confidential services, please visit www.tamuc.edu/counsel

AI use policy [Draft 2, May 25, 2023]

Texas A&M University-Commerce acknowledges that there are legitimate uses of Artificial Intelligence, ChatBots, or other software that has the capacity to generate text, or suggest replacements for text beyond individual words, as determined by the instructor of the course.

Any use of such software must be documented. Any undocumented use of such software constitutes an instance of academic dishonesty (plagiarism).

Individual instructors may disallow entirely the use of such software for individual assignments or for the entire course. Students should be aware of such requirements and follow their instructors' guidelines. If no instructions are provided the student should assume that the use of such software is disallowed.

In any case, students are fully responsible for the content of any assignment they submit, regardless of whether they used an AI, in any way. This specifically includes cases in which the AI plagiarized another text or misrepresented sources.

13.99.99.R0.03 Undergraduate Academic Dishonesty

13.99.99.R0.10 Graduate Student Academic Dishonesty

Lecture Topic

Lecture #	Topic	Reading
1	Our Place in the Universe	Ch 1, 2 and 3
1	Sun: Our Closest Star	Ch 14
2	Distances to Stars, Parallax Method	Ch 13
3	Motions of Stars, Doppler Shift, Space Vel.	Ch 13
4	Magnitudes, Temperatures	Ch 13
5	Light Spectrums, Spectral Types	Ch 5
6	Masses and Radii of Stars	Ch 13
7	Binary Stars, HR Diagram	Ch 17
8	Gas and Dust in Space	Ch 15

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9	Star Formation	Ch 15
10	Stellar Evolution	Ch 16
11	Clusters of Stars	Ch 17
12	Planetary Nebula, Supernovas	Ch 16, 17
13	White Dwarfs	Ch 16
14	Neutron Stars, Relativity, Black Holes	Ch 17, 18
15	Binary Star Evolution	Ch 16
16	Understanding the Milky Way	Ch 20
17	Galaxies: Characteristics	Ch 19
18	Hubble Law	Ch 21
19	Active Galaxies and Quasars	Ch 19
20	Large Scale Structure	Ch 22
21	The Big Bang, Shape of the Universe	Ch 23
22	Cosmology, Inflationary Universe	Ch 22
23	White Holes, Time Travel, etc.	---
24	Review	---

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