

# ASTRONOMY 260

## ARCHAEOASTRONOMY

### SYLLABUS – SPRING 2024

#### **Class Hours**

T, Th 2-3:15 PM, STC 122 (But most days we will meet in the Planetarium)

#### **Instructor**

**Dr. Kent Montgomery** (Office: Ag/ET Building 111, phone 903-886-5119, email: [kent.montgomery@tamuc.edu](mailto:kent.montgomery@tamuc.edu)) Office Hours MTWR 11 am - noon or other time by appointment.

#### **Textbooks**

##### **Required**

*Skywatchers*, Anthony Aveni

##### **Reference**

*Echoes of the Ancient Skies, The Astronomy of Lost Civilizations*, E.C. Krupp

*Ancient Astronomy*, Clive Ruggles

*Living the Sky, The Cosmos of the American Indian*, Ray A. Williamson

*Megaliths, Myths and Men, An Introduction to Astro-Archaeology*, Peter Lancaster  
Brown

*Stairway to the Stars, Skywatching in Three Great Ancient Cultures*, Anthony Aveni

#### **Other Equipment**

Also required for this class will be a compass, protractor, calculator and ruler.

#### **Class Format**

This course will be taught as a face-to-face course. If for some reason you have to miss class you must email the professor in advance or as soon as possible. All tests will be in person and homeworks will be turned in during class.

#### **Course Description**

This course will give the students an understanding of the basic motions of the sky including determining cardinal points, sun rise and set positions, moon rise and set positions as well as tracking planets on the sky. In addition, we will get a basic

understanding of the many ancient calendar systems. The studies of each of these concepts will be enhanced by studying ancient civilizations and cultures and their understanding of astronomy and how it is reflected in their beliefs, architecture and cultures.

The course will occasionally have activities which go along with the lectures. The activities will occur during the regular class time.

### **D2L Information**

This course will contain many pictures. To allow students access to the PowerPoint presentations used during lectures the material has been placed on D2L. Your grades will also be kept on D2L so students should check it regularly for accuracy.

### **Student Learning Outcomes**

- Students will be able to analyze, evaluate, or solve problems when given a set of circumstances or data.
- In written, oral, and/or visual communication, A&M-Commerce students will communicate in a manner appropriate to audience and occasion, with an evident message and organizational structure.
- Students will be able understand and utilize mathematical functions and empirical principles and processes.
- Students will be able to work together toward a shared purpose relevant to the course or discipline with a sense of shared responsibility for meeting that purpose.

### **Homework and Activities**

Students will be given homework assignments or activities throughout the semester in order to work on skills learned during class and to prepare them for the tests. In addition, there will be reading assignments and some of the homework questions will be taken from the assigned readings. The lowest homework or activity grade will be dropped. **No makeup activities will be given.** If you miss the day of the activity you will receive a zero.

### **Project**

Using what they have learned during the semester students will design a sculpture, building, site, etc. that has specific astronomical alignments. They will then create a model of their design in whatever medium they chose (paper, wood, foam, clay, digital, etc.) and give a short presentation to the rest of the class describing what it is and the significant astronomical alignments.

## **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. A higher percentage of the questions will come from the untested material at the end of the semester. All tests will be administered during the class period in the assigned classroom.

## **Grading**

Homework and Reading assignments 20%

3 Tests 15% Each

Final 20%

Project 15%

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 discussed will only be covered in lecture and not in the reference books. On some days instead of lecture we will be doing activities which will only be done on that day. Thus don't 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.

## **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](https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm)

Zoom Video Conferencing Tool

[https://inside.tamuc.edu/campuslife/CampusServices/CITESupportCenter/Zoom\\_Account.aspx?source=universalmenu](https://inside.tamuc.edu/campuslife/CampusServices/CITESupportCenter/Zoom_Account.aspx?source=universalmenu)

## **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](mailto: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.

## **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**

### **Course Specific 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/student\\_guidebook/Student\\_Guidebook.pdf](http://www.tamuc.edu/student_guidebook/Student_Guidebook.pdf)

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](#) webpage and [Procedures 13.99.99.R0.01](#)

<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](#)

[Undergraduate Student Academic Dishonesty Form](#)

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/documents/13.99.99.R0.03UndergraduateStudentAcademicDishonestyForm.pdf>

[Graduate Student Academic Dishonesty Form](#)

<http://www.tamuc.edu/academics/graduateschool/faculty/GraduateStudentAcademicDishonestyFormold.pdf>

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

Velma K. Waters Library Rm 162

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

Email: [studentdisabilityservices@tamuc.edu](mailto:studentdisabilityservices@tamuc.edu)

Website: [Student Disability Services](#)

<https://www.tamuc.edu/student-disability-services/>

#### **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](http://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

### **Materials Covered**

See course outline on separate sheets.

## **COURSE OUTLINE / CALENDAR**

### **Tentative Test Dates**

**1<sup>st</sup> Test      Thursday, February 8<sup>th</sup>**

**2<sup>nd</sup> Test      Thursday, March 7<sup>th</sup>**

**3<sup>rd</sup> Test      Thursday, April 25<sup>th</sup>**

### **Final**

**Tuesday May 7<sup>th</sup>, 1:15 to 3:15 pm**