

# ASTRONOMY 260

## ARCHAEOASTRONOMY

### SYLLABUS – SPRING 2022

#### Class Hours

T, Th 2-3:15 PM, STC 127

#### Instructor

**Dr. Kent Montgomery** (Office: Science Building 106, phone 903-886-5488, email: [kent.montgomery@tamuc.edu](mailto:kent.montgomery@tamuc.edu)) Office Hours MWF 11 am -12 pm or other time by appointment.

**Dr. Cheri Davis** – Course Assistant (Office: Science Building 148, phone 903-468-8650, email: [cheri.davis@tamuc.edu](mailto:cheri.davis@tamuc.edu))

#### 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 you forget your mask you will not be allowed into class and if an activity is being done that day you will receive a zero for the class. 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.

## **University Specific Procedures**

### **ADA Statement**

#### **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](mailto: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*).

### **Nondiscrimination notice**

A&M-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.

### **Plagiarism**

Plagiarism is a criminal activity. You must cite all sources of information. Unreferenced copying of material, whether parts of sentences, whole sentences, paragraphs, or entire articles can result in a score of zero for your assignment and may result in further disciplinary action.

### **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.

### **Materials Covered**

See course outline and field trip details on separate sheets.

## **COURSE OUTLINE / CALENDAR**

### **Tentative Test Dates**

**1<sup>st</sup> Test      Thursday, February 10<sup>th</sup>**

**2<sup>nd</sup> Test      Thursday, March 10<sup>th</sup>**

**3<sup>rd</sup> Test      Thursday, April 26<sup>th</sup>**

### **Final**

**Tuesday May 10<sup>th</sup>, 1:15 to 3:15 pm**