Instructor: Dr. Carl Ziegler  Email: Carl.Ziegler@sfasu.edu
Office: STEM Room 207L  Office Hours: MW 1-3:00pm, or by appointment
Department: Department of Physics, Astronomy, and Engineering
Class Meetings: TR 9:30 AM-10:45 AM, STEM 401

Course Description

General Bulletin: "Introductory study of planetary astronomy, astrophysics and cosmology. Lecture and laboratory grades are computed into one grade and the same grade is recorded for both lecture and lab. Co-requisite: AST 1103L."

Additional Information: This is a survey course that will stress the historical and descriptive aspects of our knowledge of astronomy. The major aim will be to give each student an appreciation and understanding of the scope and content of our universe. The methods of science will be strongly emphasized. Topics will include: star charts, the night sky, light, telescopes, stars, galaxies, and planets.

Text and Materials

1. The text is the 8th edition of *The Essential Cosmic Perspective* by Jeff Bennett. The readings indicated in the Course Outline in the syllabus correspond to chapters from this text and should be read prior to discussion of the material in class. New e-books will include a “personal access kit” for the Mastering Astronomy web site that contains the homework assignments and other study tools. You can purchase the personal access kit online if you have a physical or used book.

2. AST 1103L, the Astronomy Laboratory is a co-requisite and a new edition of the lab manual is available in the University bookstore.

Course Requirements

**Exams:** There will be four major exams, each covering a limited amount of lecture and text material. The final exam will not be comprehensive. The chapters covered and the dates of these exams are listed in the course outline on the back of this page. The exams are multiple-choice with about 50 questions. No make-up exams will be given except in the case of an excused absence. A written notice is required for an excused absence within three days of the exam. Any makeup exam must be taken within three class days of the missed exam or a grade of zero will be recorded. The makeup exams may be fill-in-the-blank or essay exams rather than multiple-choice exams. A scantron form 882-E (available in the bookstore) and pencil is required for each exam.

**Homework:** Homework assignments for each chapter will be available on the Mastering Astronomy page for this course. Homework assignments will be generally be due on Wednesdays and Saturdays throughout the semester at 11:59 PM (follow the calendar on the Mastering Astronomy site to stay up to date on homework due dates). Late assignments have grades reduced by one letter grade (10%) for each day late.

**Asynchronous project:** Choose one of these projects as listed on Brightspace:

- There are a vast number of online resources to learn about astronomy. Please find a video, article, or some other innovative way of teaching astronomy and post it on the discussion forum labeled “Astronomy Resources” on the course Brightspace page. Briefly describe the resource and write a short paragraph telling what you learned about astronomy from the link. Then, pick three other posts from your classmates and explore
the resource they link to. Reply to the three posts with something else you learned from the linked resource.

- Register and join a project on Zooniverse that interests you (doesn't have to be astronomy related!). Begin by reading the project description and tutorial, and then work through the project until you have a thorough grasp of what you are doing. Then come back to the discussion board here on Brightspace and make a new topic describing your project in a short paragraph. Discuss what the project aimed to achieve and how it uses citizen scientists (like you!) to help.

**Extra Credit:** After we finish each chapter, we’ll play an in-class review game on Kahoot. Each time you participate, you will receive extra credit equal to 10% of the homework points for that chapter. This will increase to 20% of the homework points for the three students who reach the “podium” (score in the top 3). If you code will be provided at that time to participate on your personal device. Please use your first initial and last name as your nickname for this game. If you shout out the answer or discuss with others, you forfeit the extra credit points. If you do not have a device to participate, let me know at the end of class that you were present to receive the extra credit for participation.

**Class Meetings**

This is a hybrid course, and students are free to attend in-person or via Zoom livestream for all class meetings except for exams or if otherwise noted in advance (such as for in-class planetarium shows). The in-person class meets in STEM 401, and livestream will be available via this recurring Zoom meeting link:

https://sfasu.zoom.us/j/91287616202?pwd=Y20raWhpRUt0dzRpSmIwV1piTEVNdz09

Class meetings will be recorded through Zoom in the cloud. Links to recordings of past lectures will be available on the course Brightspace page under the content tab.

If attending classes through Zoom, please have your camera on during the entire class and microphone muted unless asking a question (chat is preferred, however) or pointing out to the instructor that something is not working (such as screen is not sharing, can’t hear, etc).

In case of campus closure or instructor quarantine, this course will pivot to fully online with the lectures given solely over Zoom and tests taken online.

**Class Attendance and Excused Absence: Policy 6.7**

Regular, punctual attendance, documented participation, and submission of completed assignments are expected at all classes, laboratories, and other activities for which the student is registered. Based on university policy, failure of students to adhere to these requirements shall influence the course grade, financial assistance, and/or enrollment status. The instructor shall maintain an accurate record of each student’s attendance and participation as well as note this information in required reports and in determining final grades. Students may be excused from attendance for reasons such as health, family emergencies, or student participation in approved university-sponsored events. However, students are responsible for notifying their instructors in advance, when possible, for excusable absences. Whether absences are excused or unexcused, a student is still responsible for all course content and assignments. Students with accepted excuses may be permitted to make up work for up to three weeks of absences during a semester or one week of a summer term, depending on the nature of the missed work. Make-up work must be completed as soon as possible after returning from an absence.
Grading Policy
Each major exam will be graded on a 100-point scale. The lecture and lab grades will be combined as shown below and the same grade will be recorded for both lecture and lab.

Course Average = 0.60 \times \text{(Exam Average)}
+ 0.10 \times \text{(Average of In-Class Activities, Homework Exercises)}
+0.05 \times \text{(Out of class project)}
+ 0.25 \times \text{(Lab Average)}

This means that all exams (including the final) are weighted equally, and the lecture portion of the course accounts for 75% of the total grade. The cutoffs for each letter grade are firm. No ‘extra credit’ work will be assigned to individuals.

A 90.0 - 100   B 80.0 - 89.9   C 70.0 - 79.9   D 60.0 - 69.9   F < 60.0

Classroom Policies
For the benefit of your fellow students and your instructor, you are expected to practice common courtesy with regard to all course interactions. For example:

☐ Be considerate toward your classmates and instructor and arrive to class on time.
☐ Do not leave class early and do not rustle papers in preparation to leave before class is dismissed without speaking with your instructor first.
☐ Avoid classroom distractions. Be attentive in class.
☐ If you are late to class or must leave early please inform your instructor in advance (enter or leave quietly, don’t walk across the front of the classroom (use the side aisles) and don’t walk in front of the projector).

Office Hours
I will be available to answer emails during office hours. I will also be on a Zoom meeting page during those times at:
https://sfasu.zoom.us/j/98740313546?pwd=UG50My8vT0RkZGdMd0JzeTl0RmJCQT09 (MW 1-3 pm)
I will also be available to meet in person at my office (STEM 207L) during this time. Meetings outside these times are available by email appointment.

Class Communications
Make sure you always use your SFA e-mail account for network correspondence. Messages from your instructor will be sent to your SFA email account periodically. Class news and reminders will also be posted to the course Brightspace page at times throughout the semester.
Program Learning Outcomes:
The student will demonstrate proficiency in the basic and applied fields of physics and astronomy.

General Education Core Curriculum
The Texas Higher Education Coordinating Board has identified six core learning objectives: Critical Thinking Skills, Communication Skills, Empirical and Quantitative Skills, Teamwork, Personal Responsibility, and Social Responsibility. SFA is committed to the improvement of its general education core curriculum by regular assessment of student performance on these six objectives.

By enrolling in AST1303 you are also enrolling in a Core Curriculum Course that fulfills the Empirical and Quantitative Skills requirement. You will see this course on your D2L list.
At one point during the semester, you will receive an assignment that fulfills both the requirements of this course and the needs of Stephen F. Austin State University’s Core Curriculum Assessment Plan with the Texas Higher Education Coordinating Board. When you complete this one assignment, you need to upload the assignment to both your standard course dropbox determined by your Instructor and the “Core Curriculum” dropbox. The Core Curriculum dropbox will be identified by the Objective for which work is being collected. (Examples: Critical Thinking, Teamwork, Social Responsibility Empirical & Quantitative Skills, Personal Responsibility, Communication Skills-Written, Communication Skills-Written & Visual, and Communication Skills-Oral & Visual.) Please note that this only applies to the approved assignment. All other assignments should be submitted according to regular class operations. If you have any questions, please see your Instructor or the Office of Student Learning and Institutional Assessment.

When you complete the assignment mentioned above, you will upload the assignment to both the AST1303 dropbox and the Empirical and Quantitative Skills dropbox.

Please note that this only applies to the specific assignment listed in the matrix below. All other assignments should be submitted according to regular class operations.

If you have any questions, please see your instructor or contact the Institutional Effectiveness Office at (936) 468-1130.

The chart below indicates the core objectives addressed by this course, the assignment(s) that will be used to assess the objectives in this course and uploaded to the D2L Empirical and Quantitative Skills dropbox this semester, and the date the assignment(s) should be uploaded to the D2L Empirical and Quantitative Skills dropbox. Not every assignment will be submitted for core assessment every semester. Your instructor will notify you which assignment(s) must be submitted for assessment in the D2L Empirical and Quantitative Skills dropbox.

<table>
<thead>
<tr>
<th>Core Objective</th>
<th>Definition</th>
<th>Course Assignment Title</th>
<th>Date Due in D2L</th>
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<tbody>
<tr>
<td>Critical Thinking Skills</td>
<td>To include creative thinking, innovation, inquiry, and analysis, evaluation</td>
<td>Measurements Lab (Lab 2)</td>
<td>Please see the lab syllabus for the due date.</td>
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<tr>
<td>Communication Skills</td>
<td>To include effective development, interpretation and expression of ideas</td>
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<tr>
<td>Empirical and Quantitative Skills</td>
<td>To include the manipulation and analysis of numerical data or observable</td>
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<td>Teamwork</td>
<td>To include the ability to consider different points of view and to work</td>
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<td>Personal Responsibility</td>
<td>To include the ability to connect choices, actions and consequences to</td>
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<tr>
<td>Social Responsibility</td>
<td>To include intercultural competence, knowledge of civic responsibility, and</td>
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**Student Learning Outcomes:**
By the end of the course, a successful student will be able to:
- Recognize that the universe can be described by a few natural laws.
- Describe the characteristics of objects within the solar system including the sun, planets, moons, asteroids, and comets.
- Demonstrate a basic familiarity with stellar life cycles, galaxies, and extragalactic objects.
- Demonstrate skills developed in empirical and quantitative analysis.

**Academic Integrity (4.1)**
Please copy and paste the following information regarding Academic Integrity into your syllabus. In addition, you may include your own guidelines for academic integrity as appropriate.

Academic integrity is a responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism.
**Definition of Academic Dishonesty**

Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) the falsification or invention of any information, including citations, on an assigned exercise; and/or (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism are (1) submitting an assignment as if it were one's own work when, in fact, it is at least partly the work of another; (2) submitting a work that has been purchased or otherwise obtained from an Internet source or another source; and (3) incorporating the words or ideas of an author into one's paper without giving the author due credit.

Please read the complete policy at [http://www.sfasu.edu/policies/student-academic-dishonesty-4.1.pdf](http://www.sfasu.edu/policies/student-academic-dishonesty-4.1.pdf)

**Withheld Grades Semester Grades Policy (5.5)**

Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated course for the purpose of computing the grade point average.

**Students with Disabilities**

To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodations. For additional information, go to [http://www.sfasu.edu/disabilityservices/](http://www.sfasu.edu/disabilityservices/).

**Mental Health and Wellness**

SFA values students' mental health and the role it plays in academic and overall student success. SFA provides a variety of resources to support students' mental health and wellness. Many of these resources are free, and all of them are confidential.

**On-campus Resources:**

**SFA Counseling Services**

[www.sfasu.edu/counselingservices](http://www.sfasu.edu/counselingservices)

Rusk Building, 3rd Floor 936.468.2401

**SFA Human Services Counseling Clinic**

[www.sfasu.edu/humanservices/139.asp](http://www.sfasu.edu/humanservices/139.asp)

Human Services, Room 202 936.468.1041

**Crisis Resources:**

Burke 24-hour crisis line: 1.800.392.8343

Suicide Prevention Lifeline: 1.800.273.TALK (8255)

Crisis Text Line: Text HELLO to 741-741