Classical and Modern Astronomy Laboratory
ASTR 1103 - Fall 2021

Astronomy Laboratory Coordinator: Dr. Carl Ziegler
Office: Room 207L, Ed and Gwen Cole STEM Building
Email: Carl.Ziegler@sfasu.edu

CLASS MEETING TIMES AND PLACE

Section 21: M 1:00 – 2:50 pm, STEM 208
Section 22: M 3:00 – 4:50 pm, STEM 208
Section 24: T 12:30 – 2:20 pm, STEM 208
Section 25: T 2:30 – 4:20 pm, STEM 208

Section 27: W 1:00 – 2:50 pm, STEM 208
Section 28: W 3:00 – 4:50 pm, STEM 208
Section 30: R 12:30 – 2:20 pm, STEM 208

LAB CALENDAR

<table>
<thead>
<tr>
<th>Week</th>
<th>Lab Exercise</th>
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<tr>
<td>---</td>
<td>Aug. 23 – Aug. 29</td>
<td>No Labs</td>
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<tr>
<td>1</td>
<td>Aug. 30 – Sep. 5</td>
<td>Sky Familiarization</td>
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<td>2</td>
<td>Sep. 6 – Sep. 12</td>
<td>Scientific Measurements</td>
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<td>3</td>
<td>Sep. 13 – Sep. 19</td>
<td>Mercury’s Orbit</td>
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<td>4</td>
<td>Sep. 20 – Sep. 26</td>
<td>Lunar Phases</td>
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<td>5</td>
<td>Sep. 27 – Oct. 3</td>
<td>Emission Spectra</td>
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<td>6</td>
<td>Oct. 4 – Oct. 10</td>
<td>The Earth’s Orbital Velocity</td>
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<tr>
<td>7</td>
<td>Oct. 11 – Oct. 17</td>
<td>The HR Diagram</td>
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<tr>
<td>8</td>
<td>Oct. 18 – Oct 24</td>
<td>Stellar Distance</td>
</tr>
<tr>
<td>9</td>
<td>Oct. 25 – Oct. 31</td>
<td>Ages and Distances of Clusters</td>
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<tr>
<td>10</td>
<td>Nov. 1 – Nov. 7</td>
<td>Hubble’s Law</td>
</tr>
<tr>
<td>11</td>
<td>Nov. 8 – Nov. 14</td>
<td>The Rotation of Saturn / Lab Exam Review</td>
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<tr>
<td>Nov. 15 – Nov. 21</td>
<td>Lab Exam</td>
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NIGHT LAB SCHEDULE

In addition to the lab exercises shown above, each student is required to attend one night lab session. The night labs are normally held at the SFA Observatory. Bus transportation to and from the Observatory will be provided. The night lab schedule is shown below. Night labs begin at 7:30 pm with bus pickup at the STEM circle bus stop. If the weather does not permit observing the night sky, the night lab TA will direct students to the classroom for an alternate planetarium lab.

Section 21: Monday, October 11, 2021
Section 22: Tuesday, October 12, 2021
Section 24: Wednesday, October 13, 2021
Section 25: Monday, October 18, 2021
Section 27: Tuesday, October 19, 2021
Section 28: Wednesday, October 20, 2021
Section 30: Thursday, October 21, 2021
CLASSROOM POLICIES
Each week’s lab begins with a brief presentation by the teaching assistant (15-30 minutes). Important instructions and procedures for completing the lab exercise are given at that time. At the conclusion of the presentation, students will then complete the lab exercise under the guidance of the lab teaching assistant.

1. It is very important that you arrive on time!
2. Come prepared! Read over the lab exercise before coming to class (see calendar) and bring required materials (see Supplies below).
3. No cell phone use of any kind is allowed (including texting, games or leaving class to answer phone …). Students observed using a cell phone will lose 10 points off their daily lab grade – if a second warning is given the daily grade will be zero.

SUPPLIES
Each student MUST bring the following supplies to every lab session.

1. Pencil and eraser
2. Laboratory Manual
3. Star Chart (will be handed out in first lab)
4. Calculator (bring to every lab!)

If you do not bring the required supplies for a particular lab, you will not be able to complete the lab. Please don’t forget to bring them!

GRADING
There are 12 grades that will be used in determining a lab average (11 indoor labs and the night lab). The average of the 12 scores will count 75% and the Lab Exam 25% of the FINAL LAB AVERAGE.

FINAL LAB AVERAGE = (Average of 12 Labs X 0.75) + (Lab Exam X 0.25)

Astronomy 1303 (Lecture) and Astronomy 1103 (Lab) are averaged into one grade and THE SAME GRADE WILL BE RECORDED FOR BOTH LECTURE AND LABORATORY. The FINAL COURSE GRADE is explained in your lecture syllabus.

LAB ABSENCES
We realize that occasionally there are legitimate reasons for missing a lab such as illness, family emergency and participation in certain university-sponsored events. Please read the following absence policy carefully.

1. If you will be missing lab because of an approved university-sponsored event you must inform the astronomy laboratory coordinator at least one week before the absence.
2. Students are responsible for providing timely documentation satisfactory to the astronomy laboratory coordinator for each absence. You have one week after missing a lab to present your documentation otherwise the absence cannot be excused.
3. Students will receive a grade of zero for each UNEXCUSED lab absence.
4. Whether an absence is excused or unexcused, a student is still responsible for all course content.
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 ASTR-1103 you are also enrolling in a Core Curriculum Course that fulfills the Empirical and Quantitative Skills requirement. The chart below indicates: (a) The core objectives that are required to be taught in this course per the Texas Higher Education Coordinating Board (THECB), (b) How the required core objectives will be addressed. Include only the core objectives that must be addressed by this course in the first column. Examples of the things that can be included in the final column are: Specific assignments, class module(s), chapter(s), strategies, activities, and/or techniques that address the core objectives.

<table>
<thead>
<tr>
<th>Core Objective</th>
<th>Definition</th>
<th>Course Assignment Title</th>
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<tr>
<td>Critical Thinking Skills</td>
<td>To include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.</td>
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<tr>
<td>Communication Skills</td>
<td>To include effective development, interpretation and expression of ideas though written, oral, and visual communication.</td>
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<td>Empirical and Quantitative Skills</td>
<td>To include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.</td>
<td>Lunar phases lab</td>
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<td>Teamwork</td>
<td>To include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal.</td>
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<tr>
<td>Personal Responsibility</td>
<td>To include the ability to connect choices, actions and consequences to ethical decision-making.</td>
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<tr>
<td>Social Responsibility</td>
<td>To include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities.</td>
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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