SOUTH FLORIDA STATE COLLEGE

Division of Arts and Sciences

COURSE SYLLABUS

Spring Term 2023

AST 1002L Descriptive Astronomy Lab (1 credit hour)

Welcome – Welcome to AST1002L, Descriptive Astronomy Lab. I look forward to working with you this semester and hope that you will enjoy the class and take advantage of the resources within this course. Please feel free to contact me via email or phone if you have any questions. You will find the materials and assignments for this course listed on Brightspace under "Content." Other important course information will be listed there as well.

This laboratory course consists of both outdoor and indoor labs that will provide you a hands-on introduction to astronomy as an observational science. These labs augment the material covered in AST 1002 Descriptive Astronomy to provide you a much deeper understanding of one key area each week.

Catalog Description: This is an optional lab for students taking AST 1002 Descriptive Astronomy. It provides an opportunity to perform indoor and outdoor experiments, exercises, measurements, and observations of topics related to the AST 1002 curriculum. **Prerequisite: AST 1002 and MAC 1105 with a grade of *C* or higher. Corequisite: AST 1002.**

Course Specific Outcomes: Upon successful completion of this course, students will be able to:

1. Accurately describe the primary methods used to collect astronomical data.
2. Accurately identify and describe characteristics of the primary members of our solar system, galaxy, and the universe.
3. Accurately understand the relationship between the Earth and movements of celestial objects.
4. Accurately describe the role of the Sun with regard to the formation of the solar system.
5. Accurately explain the stages of evolution of stars.

Prerequisites: AST 1002 and MAC 1105 with a grade of *C* or higher. Corequisite: AST 1002.

Required Course Materials:
There is no required textbook for this course. All laboratories will be posted on Brightspace and can be downloaded and printed. The textbook for that course is Astropedia: Universe Revealed, by Chris Impey. This open education resource (OER) textbook is available free online at both as a standard html document and as a wikimap.

Instructional Methods:

This laboratory course will be offered in the online format. You will be required to access the course's Brightspace website regularly for online discussions, notes, and to take both quizzes and quizzes. There are no required face-to-face meetings. All quizzes will be administered online.

Course Resources:

http://online.southflorida.edu – our course Brightspace website.

http://teachastronomy.com/textbook - *our online textbook Astropedia*

Course Requirements: Assessments (Exams/Quizzes/Assignments):

INTRODUCTION ASSIGNMENT: In order to be successful in this class you must have a good grasp of the various functions on Brightspace. To receive credit and to confirm your enrollment in this class, this assignment MUST be completed before the end of the Week 1. The details on this assignment are explained more in the Brightspace Content section:

- Intro Discussion – post your introduction and reply to posts of at least three classmates

LABS: Each week you will have a different lab that often is directly related to material covered in AST 1002 lesson. The lab will focus on one aspect of the topic for the week and go much deeper in depth than the corresponding topic may be covered in AST 1002. Each laboratory has a Solution Sheet which you are to print out, fill out and submit. These are due at the end of the week (typically 11:59 PM on Sundays). All labs must be submitted electronically to the appropriate Brightspace Dropbox (not sent via email). No paper copies will be accepted. No late work will be accepted in this course. You can work ahead on the labs as desired. Laboratories will be assessed out of 10 points. There are 14 laboratories scheduled. Your course grades can be accessed anytime using Brightspace.

ASTRONOMY PICTURE OF THE DAY (APOD) DISCUSSIONS: You are to find an interesting astronomical picture from the NASA Astronomy Picture of the Day website http://apod.nasa.gov/apod/ that relates to one of the laboratories. Write a short posting on the Brightspace Discussion Board explaining the picture. Your explanation should NOT be a repeat of the NASA summary. Rather you are to describe its significance in your own words, using the picture to point out any details. Make your explanation as simple as possible, using information from the hyperlinks to explain any unfamiliar words or concepts. You do not have to go into depth but try to give an indication as to why you thought the picture was worthwhile or important and related to one of our labs. You are to submit the picture and your reflections within the appropriate APOD discussion on the corresponding week (see the course schedule at the end of this document) before the deadline each week. No late discussions will be accepted. APOD discussions will be assessed out of 10 points.

Your APOD posting must contain the following:

- Your discussion (at least six sentences)
- The date it appeared on the NASA website
- Which lab it is related to and why
- The actual image
- A hyperlink to that image

EXAMS: Three unit exams will be given in this course, each covering four to five laboratories. There also will be a comprehensive final exam. Exams will be given online using Brightspace and will contain questions directly related to your labs. Many of the questions will be conceptual in nature and will require you to apply what you have learned from doing the laboratory. Exams will be typically will be due by 11:59 PM on Sunday of the corresponding week (see the course schedule). No late exams submissions will be accepted. You may use your notes or other written reference materials, but you may not use a partner or other classmate when taking the exam. You can take the exam from any location where you have internet access. There will be no make-up opportunity for missed exams.

FINAL EXAM: The final examination in this course is mandatory. Any student not completing the exam will receive a grade of F for the course.
Final Exam Format: online, comprehensive, about 30 multiple choice questions, recommended time limit 1 hr, taken individually on your own schedule during the final exam time.

Grading:
Grading Evaluation/Criteria
Grading percentages for different assignments or exams may vary somewhat for each faculty teaching the course.

Grade percentage:

Introduction	5 %
Labs	30 %
Astronomy Picture of the Day (APOD) Posting	20 %
Exams	25 %
Final Exam	20 %
Totally	100%

Grading Scale:

≥ 90% A
80 – 89 B
70 – 79 C
60 – 69 D
< 60% F