



SOUTH FLORIDA STATE COLLEGE

Division of Arts and Sciences

COURSE SYLLABUS

Spring Term 2023

AST 1002 DESCRIPTIVE ASTRONOMY

3 Credit Hours – 16 Weeks

This online course is a Zero Textbook Cost (ZTC) course

Welcome to DESCRIPTIVE ASTRONOMY – Welcome to AST 1002 Descriptive Astronomy! I look forward to interacting with you over the coming semester in what I hope will be a fun, but meaningful, learning experience. All assignments and assessments are designed to be done online from any location.

Catalog Description: An introduction to the astronomical universe for non-science majors including astronomical instruments, methods of discovery, motions of celestial objects, evolution of stars, and a description of our solar system, galaxy, and the Universe.

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

1. Demonstrate a workable vocabulary of scientific terminology enabling you to intelligently read articles about astronomy in the media meant for general audiences.
2. Communicate scientific ideas clearly and effectively using oral, written, or graphic forms.
3. Identify and describe the primary members of the solar system, the Galaxy, and the Universe.
4. Explain the cyclic nature of the phases of the Moon, the tidal effect of the Moon on Earth, the causes of lunar and solar eclipses, and the composition of the Earth and Moon.
5. Describe the major types of stars in terms of their temperature, luminosity, size, and life cycle.
6. Compare the methods used to classify galaxies.
7. Explain phenomena observed in the sky such as eclipses, the motions of stars, the appearance of the night sky, the causes of seasons and tides.
8. Compare the theories explaining the birth and evolution of the universe.
9. Explain the details of the Hertzsprung-Russell diagram.
10. Demonstrate knowledge of the debate concerning extraterrestrial life.

Module Specific Outcomes: Learning outcomes for each week can be found in the individual module folders in Brightspace.

Prerequisites: None

Required Course Materials:

This course is a Zero Textbook Cost (ZTC) course that uses an open education resource (OER) textbook from OpenStax. The textbook is available **free** online at

<https://openstax.org/details/books/astronomy-2e>. You can view it online, download a free PDF copy,

or purchase a hard copy (if desired). This is a brand new edition and it may be difficult to obtain a hard copy. You can use the previous edition (1st edition) with no problem.
Astronomy 2nd Ed., Openstax. ISBN 13: 9781951693508

Instructional Methods: This course is offered in the online format. The textbook is available online at no cost. You will be required to access the course's Brightspace website regularly for online discussions, notes, and to take both quizzes and exams. All exams and quizzes will be administered online. There are no required face-to-face meetings, and you never have to be on campus.

Course Resources:

- online.southflorida.edu – our course Brightspace website
- <https://openstax.org/details/books/astronomy-2e> – our textbook
- <http://www.sunrisesunset.com> – great source for Moonrise and Moonset information
- <http://aa.usno.navy.mil/data/index.php> – Moonrise and Moonset information
- <http://www.saltwatertides.com/> – a great source for tidal information
- <http://freetidetable.com> – another great source for tidal information
- <http://www.tides4fishing.com/> – good tidal information
- <https://www.almanac.com/astronomy/moon-rise-and-set> – Moon and tides
- <http://bit.ly/astronomymusic> – music inspired by astronomy

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

INTERNET: You must have access to the Internet to complete the requirements of this course and access the online textbook. You will be expected to access the class Brightspace website weekly to obtain assignments, take quizzes, access course material, and take exams.

Grading:

Grading Evaluation/Criteria

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

Your course grades can be accessed anytime using Brightspace. Your overall course grade will be determined out of 1,000 possible points as follows:

Weekly Quizzes (12 – Drop 3)	240
Final Exam	200
Lunar Observation Project - Data Collection (60 points) - Data Analysis (140 points)	200
Star Project	100
AstroVideo/AstroWeb (10 – Drop 3)	40
Women in Astronomy	40
Vocabular Checks (15)	30

Self-Reflections (2)	20
Astro Music Reflection	25
Astronomy Picture of the Day (APOD)	25
Current Event in Astronomy	25
Photo Voice	25
Orientation Assignment	15
Initial Lunar Observation	15
Total	1,000

Grading Scale:

90% and above	A	Outstanding
80% – 89.9%	B	Above Average
70% – 79.9%	C	Average
60% – 69.9%	D	Lowest Acceptable
59.9% and below	F	Failure