Syllabus for Astronomy 11

Course Information

Semester & Year: Spring 2025
Course ID & Section #: Astro 11 (E7583)
Instructor's name: Dr. Jon Pedicino
Day/Time/Location: MW 1:15-2:40 PM, Hum 129
Course units: 3.0

Instructor Contact Information

Office hours: MW 9:00-10:00, Hum 209
Email address: **jon-pedicino@redwoods.edu**

Catalog Description

An examination of the geologic processes that have shaped the planets and moons of our solar system. This class will specifically look at the formation of the solar system, the history of space exploration, missions to the moon and Mars, and the search for life.

Course Student Learning Outcomes *(from course outline of record)*

1. **Critically analyze data, specifically astronomical images.**
2. **Analyze imagery in the context of evolutionary history, age, abilty to support life for a particular set of astronomical objects.**
3. **Recognize a wide variety of planetary geologic constructs and astronomical objects.**
4. **Analyze how the scientific method is used to understand natural phenomena.**

Grading

75% (100 pts each)-Summaries, **12.5%** (100 pts)- Paper, **12.5%** (100 pts)- In-Class Presentation
A (>93.3%), A- (90-93.3%), B+ (86.7-89.9%), B (83.3-86.6%), B- (80-83.2%), C+ (76.7-79.9%), C (70-76.6%), D (55-69.9%), F (<55%)

Educational Accessibility & Support

College of the Redwoods is committed to providing reasonable accommodations for qualified students who could benefit from additional educational support and services. You may qualify if you have a physical, mental, sensory, or intellectual condition which causes you to struggle academically, including but not limited to:

Mental health conditions such as depression, anxiety, PTSD, bipolar disorder, and ADHD
Common ailments such as arthritis, asthma, diabetes, autoimmune disorders, and diseases
Temporary impairments such as a broken bone, recovery from significant surgery, or a pregnancy-related disability
A learning disability (such as dyslexia, reading comprehension), intellectual disability, autism, or acquired brain injury
Vision, hearing, or mobility challenges

Available services include extended test time, quiet testing environments, tutoring, counseling and advising, alternate formats of materials (such as audio books or E-texts), assistive technology, on-campus transportation, and more. If you believe you might benefit from disability- or health-related services and accommodations, please contact Student Accessibility Support Services (SASS). If you are unsure whether you qualify, please contact SASS for a consultation: sass@redwoods.edu.

SASS office locations and phone numbers

Eureka campus

- Phone: 707-476-4280
- Location: Student Services Building, first floor

Del Norte campus

- Phone: 707-465-2324
- Location: Main Building, next to the library

Klamath-Trinity campus

- Phone: 707-476-4280

Astronomy 11 Class Schedule

Wednesday, January 22, Class begins

Monday, February 17, March 31, **Holidays, No Class**

Monday-Friday, March 17-21, **Spring Break, No Class**

Monday, April 28, In-Class Presentations Due

Sunday, May 4, Paper due (on Canvas)

Astronomy 11 Topics/Outline

Online open textbook: https://openstax.org/details/books/astronomy-2e

Class videos on Youtube: https://www.youtube.com , Search Redwoodsastronomy (numbered videos)

Week	**Summary**	Openstax Text	**Slide Set**	Youtube video	Topic
1	(**1 class**)	1.2,1.4, App C/D.	**---**	3, 4	Intro, Units, Scientific Method
2		---	**1**		Overview Slides, Space Images
3	**Unit 1**	5.1, 5.2	**3**	16, 17	EM Radiation (Light), Spectrum
4		29.6,29.3,29.1-2	**2**	23, 24	Big Bang
5	**(1 class)**		**2**	23, 24	Formation of the Universe
6	**Unit 2**	7.4,21.1,21.3,14.3	**2**	25	Solar System Formation
7		14.4, 21.4-.6	**2**	---	Extrasolar Planets
8	**Unit 3**	8.1-8.4	**4**	27	Planet Earth
SPRING BREAK					
9		---	**5**	---	Space Exploration
10	**(1 Class)**	9.1-9.4	**6**	28	The Moon
11			6	28	The Moon (continued)
12	**Unit 4**	10.1, 10.4-.6	**7,8**	29 (Mars)	Mars
13	**Unit 5**(750 wds)	12.1-.3, 30.1-.4	**10**	30 (Moons).	Io,Europa,Titan,Enceladus,LIFE
14					**In Class Presentations Due**
15	**Unit 6**(1500 wds)				**Paper Due**, **Presentations**

Research Essay/Presentation Requirements
Astronomy 11

Topic: As assigned/chosen from the class list of space missions. I would suggest consulting the internet for information. Some good places to start are www.nasa.gov , www.spacedaily.com , www.space.com , www.planetary.org , spaceflight.nasa.gov , and www.spaceweather.com, www.jpl.nasa.gov .

Length: 3-5 typed (**Minimum 1100 words**) pages, excluding figures and list of references.

Sources: Minimum Three (3) sources other than encyclopedias and textbook.

Required: Essay, References (citations), Reference List (bibliography).

Essay Due Date: Sunday, May 4, 2025. **(on Canvas)**

Late Penalty: Due by midnight, one grade lower every two days late, **not accepted after Friday, December 13**.

Presentation Due Date: Monday, April 28, 2025. (**In Class**)

***Note:** Presentation must be approximately 8-10 minutes in length and may include visual media such as powerpoint slides.

Note: **Bibliography** should be a list of all sources you have consulted with full information given about each. Normally this includes title, author, publisher, page numbers, year, etc. Internet sites should be listed with their site address (i.e. http:/www.....). To simplify, you might list each site as site 1, site 2, etc., and then reference them in that way in the text of your paper.

You should directly **reference** any idea, fact, or quotation that is not your own or common knowledge (i.e. 'the Earth is round' does not need a reference). You are free to use any reference style you would like (MLA, APA). The simplest style includes the author's name or title and the page number or the website (site 1, site 2, etc) following the referenced fact, quote, or idea in parentheses.

An example: The meteoritic impact in the Yucatan peninsula is believed to have led to the extinction of the dinosaurs. (Kring, 1993) or (site 1).