



## Syllabus for Astronomy 11

### Course Information

Semester & Year: Summer 2021 (5/31-7/21)

Course ID & Section #: Astro 11 (V4066)

Instructor's name: Dr. Jon Pedicino

Day/Time, optional **Zoom class meetings: TuTh 6:30-8:30 PM, Meeting ID 982 6244 7566**

Zoom link: <https://cccconfer.zoom.us/j/98262447566>

Course units: 3.0

### Instructor Contact Information

Office: Online **Zoom, (Wed 8:00-8:30 PM) Meeting ID 920-1599-8302**

Email address: [jon-pedicino@redwoods.edu](mailto:jon-pedicino@redwoods.edu), Zoom phone in # 1-669-900-6833 (then input meeting ID)

### 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, ability 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

**50%**-Tests (2) 25% each, **25%**- Final (3<sup>rd</sup> Test, Part Cum), **12.5%**- Project/Paper, **12.5%**- In Class Present  
**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%)**

### Accessibility

Students will have access to online course materials that comply with the Americans with Disabilities Act of 1990 (ADA), Section 508 of the Rehabilitation Act of 1973, and College of the Redwoods policies.

Students who discover access issues with this class should contact the instructor.

College of the Redwoods is also committed to making reasonable accommodations for qualified students with disabilities. If you have a disability or believe you might benefit from disability-related services and accommodations, please contact your instructor or [Disability Services and Programs for Students](#) (DSPS). Students may make requests for alternative media by contacting DSPS based on their campus location:

- Eureka: 707-476-4280, student services building, 1<sup>st</sup> floor
- Del Norte: 707-465-2324, main building near library
- Klamath-Trinity: 530-625-4821 Ext 103

During COVID19, approved accommodations for distance education classes will be emailed to the instructor by DSPS. In the case of face to face instruction, please present your written accommodation request to your instructor at least one week before the first test so that necessary arrangements can be made. Last-minute arrangements or post-test adjustments cannot usually be accommodated.

## **Astronomy 11 Class Schedule**

Tuesday, May 31, Class begins

### **Thursday, June 23, No Class**

Monday, June 27, Test #1 Due, 6 PM on Canvas

Monday, July 11, Test #2 Due, 6 PM on Canvas

Tuesday, July 12, Presentations Due, In class

Tuesday, July 19, Paper due, 6 PM on Canvas

Thursday, July 21, Final Exam, 9 PM on Canvas

## **Astronomy 11 Topics/Outline**

Online open textbook: <https://openstax.org/details/books/astronomy>

Class videos on Youtube: <https://www.youtube.com> , Search Redwoodsastronomy (37 numbered videos)

<u>Class</u>	<u>Openstax Text</u>	<u>Slide Set</u>	<u>Youtube video</u>	<u>Topic</u>
Tu, 5/31	1.4, Appendix C/D	---	3, 4	Introduction, Units, Scientific Method
Th, 6/2	---	1		Overview Slides and Space Imagery
Tu 6/7	---	1		Overview Slides and Space Imagery
Th 6/9	5.1, 5.2	3	16, 17	EM Radiation (Light), Spectrum
Tu 6/14	29.6, 29.3, 29.1-2	2	23, 24	Big Bang
Th 6/16	7.4, 21.1, 21.3, 14.3	2	25	Solar System Formation
Tu 6/21	14.4, 21.4-.6	2	---	Extrasolar Planets
M, 6/27	-----			<u>Test #1 due on Canvas at 6 PM</u>
Tu, 6/28	8.1-8.4	4	27	Planet Earth
Th, 6/30	---	5	---	Space Exploration
Tu, 7/5	9.1-9.4	6	28	The Moon
Th, 7/7	10.1, 10.4-.6	7,8	29 (Mars)	Mars
M, 7/11	-----			<u>Test #2 due on Canvas at 6 PM</u>
Tu, 7/12				In Class Research Presentations
Th, 7/14				In Class Research Presentations

Tu, 7/19 12.1-.3

10

30 (Moons)

**Paper Due**, Io, Europa, Titan, Enceladus

Th, 7/21

-----Final due on Canvas by 9 PM.

## **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](http://www.nasa.gov) , [www.spacedaily.com](http://www.spacedaily.com) , [www.space.com](http://www.space.com) , [www.planetary.org](http://www.planetary.org) , [spaceflight.nasa.gov](http://spaceflight.nasa.gov) , and [www.spaceweather.com](http://www.spaceweather.com), [www.jpl.nasa.gov](http://www.jpl.nasa.gov) .

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

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

**Required:** Essay, References (footnotes), Reference List (bibliography).

**Essay Due Date:** Tuesday, July 19, 2022 at 6 PM on Canvas.

**Late Penalty:** No late papers accepted after July 22 (9 PM), late paper loses full grade each day.

**Presentation Due Date:** Tuesday, July 12, 2022. (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)

