

Astronomy 4
Solar System Astronomy
Section 01Z, CRN 207

Fall Quarter 2024
T,Th 1:30-2:20 PM (Required)
Class Location: Online via Zoom

Instructor: Rachel Mastrapa, PhD
Email: mastraparachel@fhda.edu

Textbook:

Astronomy, Fraknoi, Morrison, and Wolff Openstax (Free)

Office hours: Monday, Wednesday 1:30-2:20 PM, or by appointment. Use Zoom in Canvas.

Course Description: In this class, students will analyze the physical principles, logic, and development of solar system astronomy from ancient times through the present. Class content is designed for non-science majors. Credit for the 5 quarter units of Astronomy 4 is fully transferable to both the University of California and California State University systems.

Drop without W by October 6
Drop with W by November 15

Exam Schedule

Exam 1 Due October 6
Exam 2 Due October 27
Exam 3 Due November 17
Final Exam Due December 10

Grade Breakdown

Discussions	20%
Capstone Project	15%
Homework	35%
Exams	20%
Final Exam	10%

Total	100%
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Course Grade Ranges

A	90–100%
B	80–89%
C	70–79%
D	60–69%
F	<60%
FW	See Below

Grades will not be rounded.

I will inform you of any changes to the policies or procedures listed below.

Class Format

This class has two meetings on Zoom each week on Tuesday and Thursday at 1:30 pm. Attendance is required. The course work is divided into individual modules in Canvas. Each module contains reading assignments, videos, and homework. All homework assignments are due at 1:30 PM on the date of the module, before the class meeting. You will need to use Canvas and Zoom to complete this class. Please keep Zoom up to date. Please visit the [student tech support](#) for any technical support or advice.

Late Assignments

You are responsible for completing all of your assignments on time. You may complete late assignments at any time before the final, but late homework assignments will lose 2% of their grade per day late. Exams and the Final have a 20% penalty per day.

Discussions: 20% of grade

Zoom Tuesday, Thursday 1:30-2:20 pm

The discussions are **required** live meetings through Zoom. I will give a short review of material and lead a discussion related to the reading and videos. There will be a discussion assignment in Canvas that we will complete together for a grade. This is also a time when students can ask questions about the class.

Please be prepared to access Zoom discussions through Canvas, ideally using a computer. If you do not have a computer, please consult the [need a computer?](#) page for options. I will not answer Canvas messages during the discussion time. Due to the size of the class, all students will be muted for Zoom sessions. You will not be required to share video. To contact me during discussion, please use the Zoom chat either to the entire class or to me directly.

Capstone Project: 15% of grade

All students will complete a capstone project of their choice. The project will be broken down into four phases that will be completed throughout the quarter.

Homework: 35% of grade

All homework assignments are in the format of Canvas multiple choice quizzes. Although they are called quizzes, they are open notes/textbook and you have two chances to complete them, retaining your highest score. There is at least one quiz on the reading assignment and one quiz for each video lecture. All homework assignments are due at 1:30 **before** the class meeting.

Exams: 20% of grade

Exam 1 Due October 6

Exam 2 Due October 27

Exam 3 Due November 17

There will be three open notes exams due at 11:59 PM on the dates listed above. Exam 1 will cover all material covered before that date. Exam 2 will only include material

covered since the Exam 2 and Exam 3 will include material covered after Exam 2. Each exam is divided into multiple separate assignments. Each section states which modules are covered in that section.

Exams will consist of multiple-choice questions in Canvas. The exam unlocks 1 week before the due date. You will have only **ONE** attempt to take the exam. Although there is no time limit for each section of the exam, if the browser is closed before submission, that section will be graded as zero. Please complete each section in a timely manner. Late exams will have a deduction of 20% per day. The exam will close 5 days after the due date. **There are no make-ups or extensions for any reason.**

You must take all three exams. You will be able to drop the lowest grade of the three exams after you complete all three.

Final Exam: 10% of grade

Final Exam Due December 10 **Final Closes** December 13

The final will be due 11:59 pm on the date above. The final will include all material covered over the entire course. The format is the same as the exams. Late finals will be deducted 20% per day. **There are no make-ups or extensions of the final for any reason.**

Communication

I will be communicating with you on a weekly basis through our Zoom meetings and a discussion page in Canvas called Class Updates. You will also receive reminders of important due dates through the Announcements page on Canvas. Please check these regularly.

If you wish to contact me please:

- 1) Use the Canvas messaging system (my preference) or
- 2) E-mail mastraparachel@fhda.edu

Please address messages to Dr. Mastrapa. I check messages and respond between 9am and 6pm M-F. I try my best to respond within 48 hours.

You can also speak to me at my office hours 1:30-2:20 pm on Mondays and Wednesdays. If those times don't work for you, please Canvas message me to schedule an appointment.

Attendance

Attendance at Zoom discussions is required. Class participation is judged by completion of assignments. I will contact you if you have missed 10 homework assignments, 2 discussion assignments, or 1 exam. I am happy to work with you on a plan for success in this class. Any student that has the above missing work and does not respond to my attempts to reach them will be dropped from the class. If the

incomplete work is after the drop with a W week, the student will receive an FW in the class.

AI Policy

You may use AI for text responses to assignments and messages, but please let me know when you are using it and what you are using. If I believe that you are using AI without stating it, your assignment will be graded as a 0.

Tutoring and Other Resources

Please visit the [Student Success Center](#) for tutoring, workshops, and other resources. Free, drop-in tutoring is available in the Math, Science, & Tech Resource Center in S43.

Statement on Inclusion

I am dedicated to making this class an open and welcoming environment where everyone can succeed. This includes differences in ability, age, appearance, athletics and student organization involvement, ethnicity, family/marital status, gender, gender expression, immigration status, language, military/veteran status, nationality, political ideology, race, religion/spirituality, sex, sexuality, socio-economic status, and other personal identities and experiences. Please contact me immediately if you encounter any barriers to your success.

While I try to be as flexible as possible, some accommodations require working with [Disability Support Services](#). If you need additional support, please contact them as soon as possible.

Behavior

All students and instructors are expected to treat each other with respect. Everyone will be held to the expectations listed in the [Student Code of Conduct](#) and the [Academic Integrity Policy](#).

Title IX: Confidentiality and Responsible Employee Statement

I am committed to creating a safe and open learning environment for all students. If you (or someone you know) have experienced any form of sexual misconduct, including sexual assault, dating or domestic violence, or stalking, know that help and support are available. The College strongly encourages all members of the community to take action, seek support, and report incidents of sexual misconduct to the [Title IX Office](#).

Please be aware that under Title IX of the Education Amendments of 1972, I am required to disclose information about such misconduct to the Title IX Office.

If you wish to speak to a confidential employee who does not have this reporting responsibility, you can contact [Mental Health and Wellness Center](#) 408.864.8868 (RSS Building, Room 258, Second Floor) or [Student Health Services](#) 408.864.8732 (Health Services Office, Hinson Campus Center, Lower Level).

Objectives

- To provide the student with as comprehensive an account of the modern field of planetary astronomy as possible.
- To create an increased sense of place and scale in the universe and a sense of how our species reached its current understanding of our world's place in the larger scheme of things.
- To acquaint the student with the appearances and other physical characteristics of the major planets, especially as they have been revealed by space probes over the last generation.
- To generate a familiarity with the various modes of research, which astronomers use to investigate other planets, including (but not limited to) various types of automated spacecraft.

Student Learning Outcomes

- Appraise the benefits to society of planetary research and exploration.
- Compare and contrast the development of planetary systems and of the major planet types, including those factors that have led to Earth's unique characteristics.
- Evaluate astronomical news items or theories concerning solar system astronomy based upon the scientific method.