

## ASTRONOMY 4

### Solar System Astronomy

De Anza College Fall 2025

#### Course Information Summary

**Term:** 2025 Fall De Anza | **CRN:** 00209 | **Title:** SOLAR SYSTEM ASTRONOMY | **Course:** ASTR D004.02Z | **Room:** Synchronous online

**Canvas course name:** F25 ASTR D004 02Z Solar System Astronomy

**Instructor:** Srikar Srinath

**Email:** [srinathsrikar@fhda.edu](mailto:srinathsrikar@fhda.edu)

Textbook:

Your textbook for this class, *Astronomy* by FHDA's own Prof. Fraknoi (among others) is available for **free** online courtesy the amazing folks at OpenStax, in a variety of formats (web view, PDF, ePUB)!

You have a couple options to obtain this book:

- [View online](https://openstax.org/details/books/astronomy-2e) at <https://openstax.org/details/books/astronomy-2e>
- [Download a PDF](#) [**recommended** - you can annotate in a PDF reader]

You can use whichever format(s) you want.

#### Lectures:

Synchronous lectures on Zoom TTh 4:00-4:50 pm. Zoom links should appear in your Canvas calendar. Recordings of lectures will be available in case you can't make regular lecture times.

There will be **no lecture** on:

1. Tuesday November 11 on account of Veterans Day
2. Thursday November 27 for Thanksgiving

### **Office Hours and questions:**

- On Zoom right after lecture on TTh 4:50 pm – 5:20 pm
- Via Zoom by appointment (please send me 3 available or preferred times when asking for an appointment)
- Canvas [Inbox](#)

For the Inbox option, if you send in a question on Friday evening I may not get to it until Sunday evening, otherwise expect a response within 12-24 hours. If you don't hear from me in that time frame, please send me a reminder - your message may have slipped down in my Inbox.

### **Introduction to Astronomy 4**

Astronomy 4 is an introductory-level course about the contents of our Solar System (and other systems like it) and what we have learned about them in the past 400+ years of telescopic observation and 60 years of space exploration.

The course has no prerequisites. However, De Anza College does advise the following: English as a Second Language 5. The class is taught with the non-Science major in mind, but we will be doing Science because anybody and everybody can (and does)!

### **Class Format**

This class is a *synchronous* online class, which means lectures are live on Zoom on Tuesdays and Thursdays 4:00-4:50 pm. Attendance will be taken, but is not compulsory. Lecture recordings will be available shortly after on Canvas under the Zoom link.

Before the first lecture, you must register once for the quarter before Zoom links are activated at this [linkLinks to an external site.:](#)

<https://fhda-edu.zoom.us/meeting/register/tXx-AbarR56VrEJxlv1VA>

After registering, you will receive a confirmation email containing information about joining the meeting.

### **Registration**

If you wish to add the class, you must obtain an add code from me. It is your responsibility to use the add code before the deadline. The preferred method is to add yourself to the class waitlist so I can send you an add code from Active Roster. If you are

not allowed to add yourself to the waitlist, please email me directly at the address above. Pretty much anyone who asks for an add code will get one (unless you tell me you want to join my *Astrology* class - actually, you'll get an add code even then).

## **Attendance**

Regular engagement with online content is required - if you do not submit any assignments in the first two weeks you *will* be dropped from the class. Expect to spend around 5-7 hours per week working on course content (watching lectures, doing assignments etc.). Break the workload into manageable, regular chunks. This class builds on prior concepts, so keeping up is crucial to success.

## **Exams and Grades**

Your class grade will be based on your performance on weekly online labs & homework assignments and a final writing assignment.

1. Every week, recent scientific articles or videos related to the course material will be posted. You will be asked to answer some short questions about the article. These assignments will add up to 30% of your grade.
2. Weekly online labs for hands-on engagement with course material for that week. This will be 30% of your grade.
3. A writing project which will be built up in 4 phases over the course of the quarter with a final submission during Finals week. This will be 40% of your grade.
4. Extra credit opportunities:
  - a. Later in the class (on or after the 8th week), you can select a Solar System-themed video from the [Silicon Valley Astronomy LectureLinks to an external site.](#) series and write a short report about the lecture of your choice.

## **Cheating**

### **JUST DON'T DO IT!**

Cheating on any assignment is grounds for a failing grade in the class and a permanent note in the student's file with additional punishment at the discretion of the administration. Some assignments may use Personify, a tool that checks for plagiarism and AI model use. The output of that tool can and will be used to determine whether cheating has occurred and penalized accordingly.

That said, you are encouraged to consult external sources (I link to a number of them every week) and use them in your writing provided you mostly use your own words in describing that work and supply either a web link or a pointer to a specific page in a book etc. Please use reputed sources with solid science reporting.

### **Generative AI Use**

The world has changed after the release of ChatGPT and similar models in late 2022. If you are *not* using Generative AI (GenAI) based tools then you are at a disadvantage to those in your class who are using it. Detecting its use is very hard, but blindly using the tools without being aware of their occasional false outputs, biases and issues can lead to shortfalls in your education. Instead of intrusively policing your use of GenAI, I am happy to help and guide you in their use with the understanding that you disclose your use in assignments (there is no penalty for doing so). Blindly copying and pasting model output is easier to detect and will result in a zero on assignments, if detected. Doing lab work and using a model to help write up your response is fine, as long as you disclose it. You are also highly encouraged to use such tools for help with studying -- they are great for providing alternate explanations or simplifying material.

### **Course Outline & Reading**

Lecture material is tentative based on progress made in class. Tests, if any, will only feature topics covered in class or in the book until the testing date.

<b>Date</b>	<b>Textbook chapter</b>	<b>Topic</b>
<b>Week 1</b>		
Sep 21	Ch 1	Cosmic Context
	Ch 2	Diurnal, Annual, Planetary apparent motions
<b>Week 2</b>		

Sep 28	Ch 3	Orbits - Kepler & Newton, The Seasons
	Ch 4	Moon phases, Tides, Eclipses
<b>Week 3</b>		
Oct 06	Ch 5	Time & Light
	Ch 5	Spectra
<b>Week 4</b>		
Oct 13	Ch 6	Telescopes on Earth and in Space. How they work.
	Ch 7	Overview of the Solar System
<b>Week 5</b>		
Oct 20	<b>Ch 8</b>	Earth as a planet
<b>Week 6</b>		
Oct 27	Ch 8	Earth-shaping processes and Climate Change
<b>Week 7</b>		
Nov 03	Ch 9	Cratered Worlds: The Moon and Mercury
	Ch 10.-10.3	Venus
<b>Week 8</b>		
Nov 10	Ch 10.4-10.6	Mars

	Ch 11	The Giant Planets
<b>Week 9</b>		
Nov 17	Ch 12	Moons of the Giant Planets
	Ch 13, 14	Dwarf planets, asteroids, comets
<b>Week 10</b>		
Nov 24	Ch 15	The Sun
	Ch 16	The Sun, Star & Solar System formation
<b>Week 11</b>		
Dec 01	Ch 21, 30	Planets around other stars, Life in the Galaxy
<b>Week 12</b>		
<b>Dec 09</b>		<b>Final assignment due at 11:59 pm</b>
Dec 12		<b>Extra credit assignment due</b>

**Student Learning Outcome(s):**

- 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.

**Office Hours:**

T,TH 4:50 PM - 5:20 PM

Zoom,By Appointment