

Course Syllabus



ASTRONOMY 4

Solar System Astronomy

De Anza College Fall 2020

Course Information Summary

Term: 2020 Fall De Anza | **CRN:** 00209 | **Title:** SOLAR SYSTEM ASTRONOMY | **Course:** ASTR D004.66Z | **Room:** Online

Instructor: Srikar Srinath

Email: srinathsrikar@fhda.edu

Canvas course name: [F20 ASTR D004 Solar System Astronomy](#)

Textbook:

Your textbook for this class is available for **free** online, in a variety of formats (web view, PDF, ePUB)!

[Astronomy from OpenStax \(https://openstax.org/details/astronomy\)](https://openstax.org/details/astronomy)

You have several options to obtain this book:

- [View online \(https://openstax.org/books/astronomy/pages/1-introduction\)](https://openstax.org/books/astronomy/pages/1-introduction)
- [Download a PDF \(https://d3bxy9euw4e147.cloudfront.net/oscms-prodcms/media/documents/Astronomy-OP_zltt6LJ.pdf\)](https://d3bxy9euw4e147.cloudfront.net/oscms-prodcms/media/documents/Astronomy-OP_zltt6LJ.pdf)
- [Order a print copy \(https://openstax.org/\)](https://openstax.org/)
- [Download on iBooks \(https://itunes.apple.com/us/book/id1208733375\)](https://itunes.apple.com/us/book/id1208733375)

You can use whichever format(s) you want. Web view is recommended -- the responsive design works seamlessly on any device.

Lectures: Online on YouTube and linked within Canvas

Office Hours and questions:

- On Canvas Class Question & Answer discussion board
- In Canvas class chat room TTh Noon - 1 pm Pacific Time
- Via Zoom by appointment (please send me available or preferred times when asking for an appointment)
- **Canvas Inbox**

Introduction to Astronomy 4

Astronomy 4 is an introductory-level course about the contents of our Solar System 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 an *asynchronous* online class which means lectures can be viewed at any time once made available. There will be 4 hours of lecture every week posted in advance to the YouTube and the Canvas website. You can expect to be tested on all of the material presented in lecture as well as in the textbook reading assignments.

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 ActiveRoster. If you are not allowed to add yourself to the waitlist, please email me directly at the address above.

Attendance

Regular engagement with online content is required: participation in online discussions and completion of lecture-related assignments can boost your grade by as much as 5% (half a grade level).

Exams and Grades

Your class grade will be based on your performance on lecture assignments, homework, a midterm and a final report. Class participation (measured by lecture questions answered or participation in discussions) will help boost your grade.

1. Every lecture will have some short answer questions associated with the. Answering these questions will make up a total of 25% of your grade. Your two lowest scores will be dropped. You get 1/3 of the points just for attempting the questions. These assignments have generous due dates (typically 10 days) but please try not to fall behind on them.
2. Every other week (i.e. skipping a week), except during midterm and finals week, a homework assignment on Canvas will test your understanding of the subject. This will make up 25% of your grade. Two homework assignments will actually be preparation for your final report so I can give you feedback on its format and on your understanding of concepts.
3. A midterm will be made available Wed, May 13. It will be multiple choice, timed (though there will be plenty time assigned to finish it) and open book/notes/Internet. This will **not** be dropped and will be **25% of your grade**

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4. The week of Finals, a report (single-spaced, maximum 12pt font, minimum 1500 words) will be due. This will **not** be dropped and will be 25% of your grade. The report topic will be revealed in Week 2 of the quarter.

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 use Turnitin, a plagiarism checking tool. The output of that tool can be, and has been, used to determine whether cheating has occurred.

Course Outline & Reading

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

Date	Textbook chapter	Topic
Week 1		
Sep 21	Ch 1	Cosmic Context
	Ch 2	Diurnal, Annual, Planetary apparent motions
Week 2		
Sep 28	Ch 3	Orbits - Kepler & Newton, The Seasons
	Ch 4	Moon phases, Tides, Eclipses
Week 3		
Oct 5	Ch 5	Time & Light
	Ch 5	Spectra
Week 4		
Oct 12	Ch 6	Telescopes on Earth and in Space. How they work.
	Ch 7, 13, 14	Overview of the Solar System
Week 5		
Oct 19	Midterm	Midterm made available
Oct 23	Ch 13.1-14.2	Midterm due
Week 6		

Week 6		
Oct 26	Ch 8	Earth as a planet
	Ch 8	Earth-shaping processes and Climate Change
Week 7		
Nov 2	Ch 9	Cratered Worlds: The Moon and Mercury
	Ch 10.-10.3	Venus
Week 8		
Nov 9	Ch 10.4-10.6	Mars
	Ch 11	The Giant Planets
Week 9		
Nov 15	Ch 12	Moons of the Giant Planets
	Ch 15, 16	The Sun
Week 10		
Nov 22	Thanksgiving week	Take a break or catch up (or both)!
Week 11		
Nov 29	Ch 21	Star Formation & Planets around other stars
	Ch 30	Life in our Galaxy (and in the Universe)
Finals		
Dec 9		Final assignment due by 11:59 pm

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.