

ASTRONOMY 4 Section 03

## **Solar System Astronomy**

De Anza College Spring 2020

### **Course Information Summary**

**Term:** 2020 Spring De Anza | **CRN:** 00192 |  
**Title:** SOLAR SYSTEM ASTRONOMY | **Course:** ASTR D004.03 |  
**Days:** MW | **Time:** 4:00-6:15 pm | **Room:** Online

Instructor: Srikar Srinath

Email: [SrinathSrikar@fhda.edu](mailto:SrinathSrikar@fhda.edu)

Canvas course name: [Sp20 ASTR D004 03 Solar System Astronomy](#)

#### Free Online Textbook

Our textbook can be found at:

<https://openstax.org/details/books/astronomy>



**Lectures:** Online on YouTube or Stream

**Office Hours:** TBD - Check course Canvas site for announcement

## **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!

### **Class Format**

This class is an *asynchronous* online class which means lectures can be viewed at any time once 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 via email. It is your responsibility to use the add code before the deadline.

### **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 class participation, online quizzes and a final report.

The exams will be multiple choice and graded on a curve.

### **Cheating**

Cheating on any exam 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.  
**JUST DON'T DO IT!**

## 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.

### Week 1

Apr 13 Ch 1 Cosmic Context

Apr 15 Ch 2.1 Diurnal, Annual, Planetary apparent motions

### Week 2

Apr 20 Ch 2.2-3.1 Origins of modern astronomy: Ancients to Kepler

Apr 22 Ch 3.2-3.6 Newton's discoveries: Motion, gravity, and orbits

### Week 3

Apr 27 Ch 4.1-4.6 What causes seasons and Moon Phases

Apr 29 Ch 4.7 Eclipses

### Week 4

May 04 Ch 5 Light, electromagnetic spectrum, and spectroscopy

May 06 Ch 6.1 How telescopes work; Earth and space Observatories

### Week 5

May 11 Ch 7 Overview of our solar system

May 13 Ch 13.1-14.2 Asteroids, Comets, Meteors, and Meteorites

### Week 6

May 18 Ch 8 Earth as a planet

May 20 Ch 8 Earth as a planet

**Week 7**

May 25      **No class (Memorial Day)**

May 27      Ch 9.1 - 9.5      Cratered Worlds: The Moon and Mercury

**Week 8**

Jun 01      Ch 10.1-10.3      Venus

Jun 03      Ch 10.4-10.6      Mars

**Week 9**

Jun 08      Ch 11-12.1      The Giant Planets

Jun 10      Ch 12.2-12.5      Moons of the Giant Planets

**Week 10**

Jun 15      Ch 14.3, 15, 16      Origin of the solar system; The Sun

Jun 17      Ch 21.3-21.6      Planets around other stars

**Finals week**

Jun 24      **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.