

Note: This PDF file is an abbreviated version of this class's website. For more complete information about this class, go to:
<http://nebula2.deanza.edu:16080/~marek/astro4day/index.html>

Astronomy 4

Section 1 (M through F, 8:30-9:20 am)

Image: NASA / JPL / SSI

Welcome to Astronomy 4!

Do you need to fulfill a General–Ed Science requirement?

De Anza's Astronomy 4 class fulfills the physical science requirement from the [CSUGE](#) and [IGETC](#) lists.

Most students who take Astronomy 4 are non–science majors working through their science requirements before transferring or getting a De Anza Associate degree. I'm excited about sharing the adventure of astronomy with you!

For Current Students:

Make sure to familiarize yourself with the links in the navigation bar (at the top of the page). There you'll find all the information you'll need to `navigate' your way through the quarter. It's a good idea to check the [Calendar](#) every day, and don't forget to use the Calendar's `week' and `month' buttons to see what's coming up. You'll also want to look at the [What2Know](#) page frequently, to guide your studying for the tests and the final exam.

Textbook: [The Solar System, 8th edition](#), by Seeds and Backman. The bookstore probably has used copies, and it may be available as part of their [textbook rental program](#). The publisher also has it available as an [ebook rental](#) and as a [physical rental](#).

Class Schedule:

Mon through Fri, 8:30–9:20 am, [De Anza Planetarium](#)

Instructor:

Dr. Marek Cichanski
Office: S15a
Office Hours: M through F 9:30 – 10:20 am, plus other times by appointment.
(408) 864–8664
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Dr. C's other internet content: [Twitter](#), [YouTube](#), [Vimeo](#), [Flickr](#), [Blogspot](#)

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.



Astronomy 4 lecture schedule, Fall 2015 Morning Class

Important: Dates of TESTS are fixed, but the *lecture topics* (shown in *italics*) are tentative. For example, we may or may not cover “Observatories...” on Oct. 15th, depending on how quickly we cover the preceding material.

Each test covers the material since the last test.

Final Exam is comprehensive - it covers the whole quarter.

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Wk. 1	Sep 21 Class Enrollment	22 <i>How the class works, Looking at the Sky</i>	23 <i>Diurnal and Annual apparent motions in the sky</i>	24 <i>Apparent Magnitudes, The Ancient Two-Sphere Univ.</i>	25 <i>Moon Phases: What we see in the sky</i>	26
Wk. 2	Sep/Oct 28 <i>Moon Phases: What's really going on?</i>	29 <i>Eclipses</i>	30 <i>Ancient Astronomy, Seasons</i>	1 <i>Pre-Copernican models of the universe</i>	2 <i>The Copernican model</i>	3 Last day to add
Wk. 3	Oct 5 <i>“Galileo’s Battle for the Heavens”</i>	6 <i>Galileo: Jupiter’s moons and seeing a gibbous Venus</i>	7 <i>Tycho’s data and Kepler’s laws</i>	8 <i>Newton’s Laws: What causes a change of motion?</i>	9 <i>Tides, How orbits work</i>	10
Wk. 4	Oct 12 TEST 1	13 Review Test 1	14 <i>How telescopes work</i>	15 <i>Observatories on Earth and in space</i>	16 <i>Light and spectra</i>	17
Wk. 5	Oct 19 <i>“Birth of the Earth”</i>	20 <i>Origin of the Solar System</i>	21 <i>The Sun: Structure, Fusion, Magnetic field</i>	22 <i>The Earth: A quick course in geology and geophysics</i>	23 <i>Earth’s Moon: What formed all those craters?</i>	24
Wk. 6	Oct 26 <i>Earth’s Moon: Its origin, geology, and exploration</i>	27 <i>Mercury: The (slightly) shrinking planet</i>	28 <i>Twin sibling... or not? Venus and the greenhouse effect</i>	29 <i>Comparative planetology: Tectonics of Venus and Earth</i>	30 <i>Mars: Early observations and discoveries</i>	31
Wk. 7	Nov 2 TEST 2	3 Review Test 2	4 <i>Mars: Evidence for water and the search for life</i>	5 <i>“Five Years on Mars”</i>	6 <i>Jupiter: The giant planet</i>	7
Wk. 8	Nov 9 HOLIDAY	10 <i>Jupiter’s Moons: Ice, volcanoes, and the search for life</i>	11 <i>Saturn and its rings</i>	12 <i>Saturn’s Moons: Ice, geysers, a giant “walnut”, and lakes</i>	13 <i>Uranus</i> Last day to drop with “W” grade	14
Wk. 9	Nov 16 <i>Neptune</i>	17 <i>Asteroids: A failed planet</i>	18 <i>Meteors and meteorites</i>	19 <i>Comets</i>	20 <i>Impact hazards and planetary defense</i>	21
Wk. 10	Nov 23 TEST 3	24 Review Test 3	25 <i>Discovery of Pluto</i>	26 HOLIDAY	27 HOLIDAY	28
Wk. 11	Nov/Dec 30 <i>The Kuiper belt and the Pluto controversy</i>	1 <i>Beyond our solar system: The realm of the stars</i>	2 <i>How to find planets around other stars</i>	3 <i>Extrasolar planets: What we know so far</i>	4 <i>The search for life in the universe</i>	5
Wk. 12	Dec 7	8 FINAL EXAM 7:00 - 9:00 am	9	10	11	12

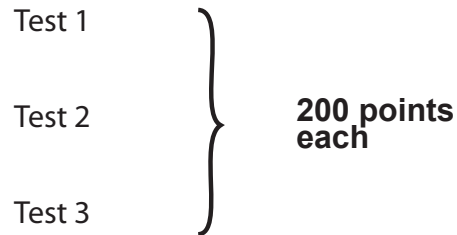
For reading assignments, go to the online version of this schedule at:
<http://nebula2.deanza.edu:16080/~marek/astro4day/calendar.html>

Astronomy 4

GRADES

step 1:

You take various tests and the final



FINAL EXAM 300 points

step 2:

I drop the lowest midterm score

-200pts = 400 points of midterms

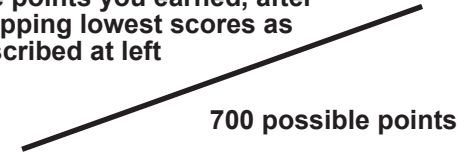
*There's no way I'm gonna drop **this** one...*

step 3:

I calculate the final grade.

Your final percentage =

The points you earned, after dropping lowest scores as described at left



I then round your final percentage to the nearest whole percent, and use the following grading scale:

Notes:

1) A %-age like 88.7 rounds to an 89, so it's an A.

89-100	A
79-88	B
68-78	C
57-67	D
<57	F

If something causes you to miss a test, that will be the one that you drop. This means that there are **NO MAKEUPS**.

You have to take all of your midterms and your final exam with **YOUR SECTION** of the class.

I'm afraid that my schedule won't allow me to give you a final at a different time in order to fit your vacation.

You'll need to plan around the final.

Astronomy 4 Rules and Procedures

During the first few weeks of class, I will collect state-mandated attendance data using a sign-in sheet and/or seating chart.

ADDING THE CLASS:

If you add the class, *make sure that your add code has worked, and that you have been properly added to the class.* If not, it is your responsibility to check with the Admissions/Records office to find out how this can be corrected. After the end of Week 2, the College cannot process a late add, and you could find yourself not enrolled and not receiving a grade for the course, if you're not registered!

DROPPING THE CLASS:

I would like to see everyone complete the course, earn a good grade, and become excited about science. However, the realities of life sometimes get in the way. You should assess your situation realistically throughout the quarter.

If you decide to drop the class, you must do so by the final date to drop with a "w", or you risk receiving an "F" if you haven't earned enough points to pass the class.

Let me re-emphasize that: If you decide to drop the course, it is *your* responsibility to go to the registrar and drop yourself. The deadline is the end of the eighth week.

VERY IMPORTANT INFORMATION ABOUT DROPPING AND THE END OF THE QUARTER:

For many years, De Anza students have been given the impression that "your instructor can drop you" after the end of the 8th week. THIS IS CHANGING! We are no longer allowed to give a "W" on the final grade form. Additionally, I will NOT be able to drop you using a blue 'Addendum to Class List' form after the end of the 8th week. If you have a personal hardship after the end of the 8th week, you will have to request a "Late Drop" using a white form called "Petition for Exception to Registration Policies", which will be evaluated by the Registrar and/or the Academic Council.

CLASS ENVIRONMENT:

Remember that we have all chosen to be in this class. We should thus have an environment that fits this choice.

Talking to your neighbor(s) while I'm lecturing, reading non-course material in class, doing outside homework, and using wireless devices of any kind are not allowed in class, and may result in dismissal for the remainder of the class period.

Such dismissal will count as an absence.

TESTS:

After you start working on a test or quiz, you must hand it in before leaving the room.

If you arrive late for a test or quiz, you won't be given extra time to finish it.

On tests and quizzes, once the first person has turned it in and left the room, no further latecomers will be given tests.

If you find yourself wanting to use a calculator on a test (such as to solve an extra-credit question that involves a numerical calculation), you'll need to use a regular calculator; you can't use a cell-phone calculator.

NOTICE:

Cheating on any exam or project is grounds for a failing grade in the class and a permanent note in a student's file. "Cheating" is defined (in this course) to be an effort by a student to obtain a grade by any means other than demonstration of that student's individual achievement in mastering the class material and/or fulfilling terms of a project.

Further grounds for expulsion from the class include any activity which interferes with others' ability to benefit from the class (such as chronic distracting behavior) or which degrades the Planetarium's function or environment.