ASTRONOMY 4
De Anza College

Section 1

M - F, 8:30 - 9:20 am

De Anza Planetarium (PLT)

Marek Cichanski

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IMPORTANT: This syllabus document is only a `condensed' version of the class website! For all of the information you need about this course, see the class website at: http://mrcgeoastro.com/astro4/index.html

TEXTBOOK

We will be using the free online textbook "Astronomy" by Fraknoi, Morrison, and Wolff:

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

Astronomy 4 lecture schedule, Winter 2018 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 Feb. 8th, depending on how quickly we cover the preceding material.

Each test covers the material since the last test. See the What2Know list for details.

Final Exam covers the whole quarter.

		MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Wk. 1	Jan	8 *Class Enrollment*	9 *Class Website and Procedures, Our Cosmic Context*	10 *Diurnal apparent motions in the sky*	11 *Annual apparent motions in the sky*	12 *Apparent motions of the planets*	13
Wk. 2	Jan	15 **HOLIDAY**	16 *Ancient Astronomy*	17 *Copernicus and Galileo: A Sun-centered model*	18 *Tycho and Kepler: Laws of planetary motion*	19 *Newton's Laws: How does motion REALLY work?*	20 Last day to add
Wk. 3	Jan	22 **TEST 1**	23 *Gravity: A Universal Force*	24 Review Test 1	25 *How do orbits work?*	26 *Orbits of multiple bodies; Discovery of Neptune*	27
Wk. 4	Jan/ Feb	29 *What REALLY causes the seasons?*	30 *Moon phases: What we see in the sky*	31 *Moon phases: What's really going on*	1 *Eclipses of the Moon*	2 *Eclipses of the Sun*	3
Wk. 5	Feb	5 *Light and the Electromagnetic Spectrum*	*Spectroscopy:* 6 *How atoms give away info about themselves*	7 *How telescopes work*	8 *Observatories on Earth and in space*	9 *Overview of the solar system we live in*	10
Wk. 6	Feb	12 **TEST 2**	13 *Dating planetary surfaces and samples*	14 Review Test 2	15 *Earth: The planet we know best*	16 **HOLIDAY**	17 **HOLIDAY**
Wk. 7	Feb	19 **HOLIDAY**	*Earth's Moon:* 20 *What formed all those craters?*	*Earth's Moon:* 21 *Its history and exploration*	22 *Mercury: The (slightly) shrinking planet*	23 *Venus: How similar to Earth is it?*	24
Wk. 8	Feb/ Mar	26 *Venus and the greenhouse effect*	27 *Mars: Early observations and theories*	28 *Mars: Modern observations and theories*	1 *"Five Years on Mars"*	2 *The giant planets* Last day to drop with "W" grade	3
Wk. 9	Mar	5 **TEST 3**	6 *The Galilean moons of Jupiter*	7 Review Test 3	8 *Titan and Triton*	9 *Planetary rings: Not just Saturn!*	10
Wk. 10	Mar	12 *Asteroids: A failed planet*	13 *"Asteroids: Doomsday or Payday?"*	14 *Comets*	15 *Rosetta: Mission to a comet*	16 *Meteors and Meteorites*	17
Wk. 11	Mar	19 *Origin of the solar system*	20 *The Sun: Its structure and magnetic field*	21 *The Sun: How does it generate energy?*	22 *How to find planets around other stars*	23 *Extrasolar Planets: What we know so far*	24
Wk. 12	Mar	26	27	28 ***FINAL EXAM*** *7:00 - 9:00 am*	29	30	31

Astronomy 4

GRADES

step 1:

You take various tests and the final

Test 1
Test 2
Test 3

200 points each

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

700 possible points

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 asess 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.

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 panet 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.