

DeAnza College
Physical Sciences, Mathematics & Engineering Division
Winter Quarter 2017

Astronomy 04: "The Solar System"

Class times

& Location: **Section 04** **Call # 00189** **1:30 -3:45**
p.m. Tue/Thu **Planetarium – Tue & Forum 1 - Thu**

Instructor: **Paul J. Olejniczak**

Email: olejniczakpaul@deanza.edu

Office Hours: **10:30-11:00 a.m. Mon/Wed & 12:30-1:00 p.m. Tue/Thu**

Textbook: **“The Solar System” by Michael A. Seeds (Latest Edition)**

Class Website: **olespaul.com**

Course Description:

Astronomy 04 is an introductory-level course which concentrates on the Sun and the family of objects that orbit it including the planets, their satellites, asteroids, comets, meteoroids and Kuiper Belt objects. The course will focus on what we’ve learned about them in the past six decades since the advent of humanity’s ability to explore space. The course has no astronomy, physics or math prerequisites and is taught in a “non-mathematical” manner.

Objectives:

To provide the student with as comprehensive an account of the modern field of planetary astronomy as possible.

To create an increased sense of place and scale in the Universe and a sense of how our own species reached its current understanding of the Earth’s place in the larger scheme of things.

To acquaint the student with the appearance and other physical characteristics of the major planets especially as they have been revealed by space probes over the last generation.

To generate a familiarity with the various modes of research which astronomers use to investigate other planets including but not limited to various types of automated spacecraft.

Evaluation:

A student's grade will be based on four - fifty question each – objective type examinations including a comprehensive final examination. The lowest of the first three scores will be dropped and the final grade will be a simple average of the remaining two exams and the final exam. Sample exams from previous quarters are posted online at the course website.

Letter Grades:

A	= 89% +	B	= 79-88%
C	= 69-78% %	D	= 59-68%
F	= 0-58%		

Make-up Examinations will not be administered. A missed test for any reason will be counted as a student's one allowed dropped test. There will be no exceptions. Students missing two tests must withdraw before the final withdrawal date or receive an "F" for the class.

Scantron test forms – brown or green – and #2 pencils are required for examinations. Graded tests forms should be retained by the student until final grades are posed by the college.

Last date to withdraw with no record of grade is Sun 01/22

Last date to withdraw with a "W" is Fri 03/03.

Important Dates:

Tue 01/10	Class begins
Tue 02/07	Test 1 on Chapters 1,2,3,4 & 5.1
Tue 02/21	Test 2 on Chapters 6,8,19 & 20
Tue 03/14	Test 3 on Chapters 21-24
Tue 3/28	Final Examination 1:45 pm

Class & Lecture Schedule:

(Dates below indicate ... "The week of Tue Jan 10, etc.)

Jan 10/12	Tue/Thu	Orientation # Review of Class Roster Preface: Aesthetic Qualities of the Universe Chapter 1: The Scale of the Cosmos" Digital System: "Passport to the Universe"
Jan 17/19	Tue/Thu	Chapter 2: "The Sky" Coast Video: "The Sky"
Jan 24/26	Tue/Thu	Chapter 3: "Cycles of the Moon" Coast Video: "Cycles of the Sky"

		Chapter 4.1: “The Roots of Astronomy” Coast Video: “The Origin of Astronomy”
Jan 31/02	Tue/Thu	Chapter 4.2-5.1: “The History of Astronomy” Cosmos Video: “The Harmony of the Worlds” Review for Test 1 (Chapters 1-5.1)
Feb 07/09	Tue/Thu	Test 1 on Chapters 1,2,3,4,5.1 Return and Review Test 1 Chapter 6: “Light and Telescopes” Coast Video: “The Tools of Astronomy”
Feb 14/16	Tue/Thu	Chapter 8: “The Sun” PBS Video: “Solar Blast” Chapter 19: “The Origin of the Solar System” Coast Video: “The Origin of the Solar System”
Feb 21/23	Tue/Thu	Chapter 20: “Planet Earth” Review for Test 2 (Chapters 6,8,19 & 20 (Earth)) Test 2 on Chapters 6, 8, 19 & 20 Return and Review Test 2 Chapters 21.1: “The Moon” BBC Video: “The Moon”
Feb 28/02	Tue/Thu	Chapter 21.1: “The Moon – Part 2) Chapter 21.2 and 22.1: “Mercury & Venus” Chapter 22.2 and 22.3: “Mars and Its Moons”
Mar 07/09 Rovers”	Tue/Thu	Mars Part 2: “The Exploration of Mars – The Martian Chapter 23: “Jupiter and Saturn” BBC Video: “Giants”
Mar 14/16	Tue/Thu	Chapter 24: “Uranus, Neptune & Pluto” Review for Test 3 (Chapters 21-24) Test 3 on Chapters 21-24 Return and Review Test 3
Mar 21/23	Tue/Thu	Chapter 25: “Meteorites, Asteroids and Comets” Coast Video: “Meteorites, Comets and Asteroids” Nat Geo Video: “Asteroids: Deadly Impact”
Mar 3/28	Tue	Final Examination 1:45 p.m.