DeAnza College
Physical Science, Mathematics & Engineering Division
Spring Quarter 2016

Astronomy 04: "The Solar System"

Class Times	**Section 4 Call No. 193 1:30-3:45 a.m. Tue & Thu**
Location:	**Tue: The Fujitsu Planetarium / Thu in Forum 1**
Class Times:	**Section 5 Call No. 40208 4:00-6:15 p.m. Tue & Thu**
Location:	**The Fujitsu Planetarium**
Instructor:	**Paul J. Olejniczak (Oles)**
Office:	**S48A**
Phone:	**408-864-8676**
Email:	**olejniczakpaul@deanza.edu**
Office Hours:	**10:30-11:15 a.m. MTWThF & 12:00-1:00 p.m. TTh**
Textbook:	**"The Solar System" by Michael A. Seeds, Latest Edition**
Class Website:	**olespaul.com**

Description:

Astronomy 4 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 have learned about them in the past five 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 species reached its current understanding of our world's place in the larger scheme of things.**
- **To acquaint the student with the appearances 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 final grade will be based upon four (4), fifty (50) questions each, objective-type exams including a comprehensive final examination. The lowest of the first three test scores will be dropped and the final grade will be a simple average of the remaining two (2) exams and the final exam. Sample exams from previous quarters are posted online.

Make-up examinations <u>will not</u> be administered.

- **A missed test – for any reason - will be counted as the student's one allowed dropped test. <u>There will be no exceptions</u>.**

- **Students missing two tests must withdraw <u>before the final withdrawal date</u> or receive an "F" grade for the class.**

    - **Last day to drop a class with no record of grade is Sun Apr 17**
    - **Last day to drop with a "W" is Fri Feb 27**

<u>Notes regarding examinations:</u>

- **Scantron test forms (brown or green) and #2 pencils are required for all examinations. It is the responsibility of the student to mark answers clearly and to fully erase mismarked answers. Scantron forms will not be rescored.**
- **Graded Scantron forms should be retained by students until their grades are formally posted by the College.**

<u>Letter Grades</u>:	**A**	**= 89% +**
	B	**= 79-88%**
	C	**= 69-78%%**
	D	**= 59-68%**
	F	**= 0-58%**

<u>Extra Credit</u>:

- **Extra credit questions will be provided on each examination and will be drawn from material in instructional videos presented during class.**
- **Optional extra credit assignments and projects will be also be offered during the quarter.**

<u>Important Dates</u>:	**Jan 05**	**Tue**	**Class begins**
	Feb 02	**Tue**	**Test 1 On Chapters 1, 2, 3, 4 & 5.1**
	Feb 16	**Tue**	**Test 2 on Chapters 6, 8, 19 & 20**
	Mar 08	**Tue**	**Test 3 on Chapters 21, 22, 23 & 24**
	Mar 24	**Thu**	**Final Exam from 1:45-3:45 p.m.**

<u>Class and Lecture</u> Schedule (Date indicates "The Week of Tuesday….")

Apr 05/07	**Tue/Thu**	**Orientation & Review of Class Roster** **<u>Chapters 1: "The Scale of the Cosmos</u>""** **Digital System : "Passport to the Universe"**
Apr 12/14	**Tue/Thu**	**<u>Chapter 2: "The Sky"</u>** **Coast Tele-course Video: "The Sky"**
Apr 19/21	**Tue/Thu**	**<u>Chapter 3: "Cycles of the Moon</u>"** **Coast Tele-course Video: "Cycles of the Sky"** **<u>Chapter 4.1: "The Roots of Astronomy</u>"** **Coast Tele-course Video: "The Origin of Astronomy"**

Apr 26/28	**Tue/Thu**	**Chapter 4.2 – 5.1: "History of Astronomy"** **Cosmos Video: "Harmony of the Worlds"** **Review for Test 1 (Chapters 1 through 5.1**
May 03/05	**Tue/Thu**	**Test 1 on Chapters 1,2,3,4 & 5.1** **Return and Review Test 1** **Chapter 6: "Light & Telescopes"** **Coast Tele-course Video: "The Tools of Astronomy"**
May 10/12	**Tue/Thu**	**Chapter 8: "The Sun"** **PBS Video "Solar Blast"** **Chapter 19: "The Origin of the Solar System"** **Coast Tele-course Video: "The Origin of the Solar System"**
May 17/19	**Tue/Thu**	**Chapter 20: "Planet Earth"** **Review for Test 2 (Chapters 6, 8, 19 & 20)** **Test 2 on Chapters 6, 8, 19 & 20** **Return and Review Test 2** **Chapter 21.1: "The Moon"** **BBC Video "The Moon**
May 24/26	**Tue/Thu**	**Chapter 21.1: "The Moon Part 2"** **Chapter 21.2 & 22.1: "Mercury & Venus"** **Chapter 22.2 & 22.3 "Mars and its Moons"**
May 31/Jun 02	**Tue/Thu**	**Mars Part II: "The Exploration of Mars"** **The Martian Rovers: Spirit & Opportunity** **Chapter 23: "Jupiter & Saturn"** **BBC Video Volume #2: "Giants"**
Jun 07/09	**Tue/Thu**	**Chapter 24: "Uranus, Neptune & Pluto"** **Review for Test 3** **Test 3 on Chapters 21-24** **Return and Review Test 3**
Jun 14/16	**Tue/Thu**	**Chapter 25: "Meteorites, Asteroids and Comets"** **Coast Tele-course Video: #25 "Meteorites, Comets and Asteroids"** **National Geographic Video: "Asteroids: Deadly Impact"**
Jun 21	**Tue**	**1:30 pm Section - Final Exam at 1:45 p.m.**
Jun 23	**Thu**	**4:00 pm Section – Final Exam at 4:00 p.m.**

Rules & Regulations:

Regular class attendance is required. Class attendance will be recorded each class period. Students missing three (3) consecutive classes will be dropped from the class.

The use of cell phones or pagers is strictly forbidden during class unless prior arrangements have been 0made with the instructor.

No food or drinks of any kind are permitted in Planetarium.