

CHAMINADE UNIVERSITY PHY-140: INTRODUCTION TO ASTRONOMY COURSE SYLLABUS – SPRING 2013

Instructor: Muge Karagoz
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Office: Henry Hall 123C
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Course Time: Monday, Wednesday, and Friday from 13:30 to 14:20
Course Room: EIBN 201
Prerequisites: Concurrent enrollment in PHY-140L is assumed.
Required Text: Bennett, Donahue, Schneider, and Voit, *The Essential Cosmic Perspective*, 6th ed., Pearson, New York, 2012.
Other Materials: Calculator

COURSE DESCRIPTION:

This survey of general astronomy course is intended for students with no previous background in astronomy. The course will emphasize the tools and methods of astronomy, the solar system, the stars, and the structure and evolution of the galaxies and the universe.

EVALUATIONS AND GRADING SCALE:

Exam 1	15%
Exam 2	15%
Exam 3	15%
Final (Cumulative)	25%
Homework	15%
Presentation	15%
90% – 100%	A
80% – 90%	B
70% – 80%	C
60% – 70%	D
0% – 60%	F

Incomplete grades (I) will be given in accordance with college regulations as outlined in the college catalog. Withdrawals (W) from the class are the responsibility of the student and deadlines are set by the college.

EXAMS:

There will be three examinations and a final as part of the requirements for the course. Tests include a combination of short answer, multiple choice, figure identification, and short essay formats. Exam questions may be drawn from readings in the textbook, lecture materials (including handouts or other supplements), homework assignments, slides, and in-class activities. Make-up exams will only be given under extenuating circumstances beyond the student's control.

HOMEWORK:

To be successful in this course, it is essential that you complete all homework assignments. Be prepared to spend three hours or more on homework every week. If you are having trouble, get help from the instructor or your classmates. Do not fall behind. Homework is due at the beginning of class. Late homework is not accepted.

PRESENTATION (more information coming later):

As a part of this course, you are required to give a presentation. You can either give it by yourself or with one other person.

Presentations from individuals should last six minutes. Presentations from groups of two should last ten minutes. Time will be allowed for questions. You can use Power Point, the white board, or just talk. If you require other materials, let the instructor know in advance.

You can speak on anything related to astronomy that you think the class will find interesting. The only constraint is that the topic must be approved by the instructor. Here are some ideas (more may be given later).

Uncovered sections of TECP During the semester, we will not have time to cover all sections in the text. Still, there are very interesting questions such as: What are the necessities of life? Could there be life on Mars? Are there parallel universes?

Current Research and Astronomical Events New discoveries in astronomy are made on a daily basis. Also, there are interesting celestial events happening every year. Check the magazine *Astronomy* in the library or <http://www.physorg.com/> for instance. There are many other sources.

Popular Culture UFOs, crop circles, and similar topics are frequently reported in the popular news. A discussion of these topics could be interesting. Do not, however, stray too far from science. The information that you present must be backed by evidence and you must describe this evidence in your talk.

History People have observed the Sun, Moon, and stars since the beginning of time. In many cases, their understanding of what they observed took the form of stories and legends. You might, for example, discuss part of the history of Hawaiian, Greek, Chinese, Native American or Muslim astronomy.

ATTENDANCE:

Regular attendance is expected of all students. Read material prior to lecture. If a topic is still not clear after it has been discussed in class, ask questions. Time will be spent working through homework problems and reviewing for exams in addition to lecturing.

COURSE OBJECTIVES:

Upon successful completion of the course, students will be able to:

- Identify and describe all the members of our solar system.
- Identify major stars and constellations.
- Classify stars according to brightness, size, color, and distance.
- Describe the evolution of different kinds of stars.
- State characteristics of various deep sky objects.
- Construct a hierarchy of objects in the observable universe, according to size and distance.
- Describe cosmological ideas and findings relevant to the origin and evolution of the universe.

MUSIC DEVICES AND CELLPHONES:

Unless specifically permitted by your instructor, use of music devices and cell phones is prohibited during all Natural Science and Mathematics classes at Chaminade, as it is discourteous and may lead to suspicion of academic misconduct. Students unable to comply will be asked to leave class.

ADA ACCOMODATIONS:

Students with special needs who meet criteria for the Americans with Disabilities Act (ADA) provisions must provide written documentation of the need for accommodations from CUH Counseling Center (Dr. June Yasuhara, 735-4845) by the end of the third week of classes. Failure to provide written documentation will prevent your instructor from making necessary accommodations. Please refer any questions to the Dean of Students and review procedures at:

www.chaminade.edu/student_life/sss/counseling_services.php

TENTATIVE WEEKLY SCHEDULE:

(will be detailed very soon)