CHAMINADE UNIVERSITY
PHY-140L: INTRODUCTION TO ASTRONOMY LAB
COURSE SYLLABUS – SPRING 2012

Instructor: Matthew Cochran
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Office: Henry Hall 7
Office Phone: 739-8361
Course Time: Monday from 2:30 to 5:20
Course Room: Henry Hall L10
Prerequisites: Concurrent enrollment in PHY-140 is assumed.
Required Text: None. Handouts will be provided.
Other Materials: Lab Coat

COURSE DESCRIPTION:

This course consists of a series of labs/activities chosen to compliment the material covered in lecture. Emphasis is placed on moving away from memorized responses and towards a deep understand of fundamental physics concepts and astronomical principles.

COURSE OBJECTIVES:

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

- Use fundamental physics concepts and astronomical principles to describe the apparent motions of the Sun, Moon, and stars.
- Use fundamental physics concepts and astronomical principles to describe, classify, and compare celestial objects (*i.e.,* size, brightness, temperature, composition, distance, etc.)
- Identify major constellations and important stars in the night sky.

EVALUATIONS AND GRADING SCALE:

Labs Activities (12) 40%
Homework (12) 30%
Quizzes (12) 30%

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.

LAB ACTIVITIES AND HOMEWORK:
During labs, students will work together on worksheets that consist of carefully sequenced tasks and questions. Students are expected to construct answers for themselves through discussions with their classmates and with the instructor. The homework will consist of four to six multiple choice questions. The lab activities and homework are due at the beginning of the next lab.

QUIZZES:
A ten-minute quiz consisting of two or three multiple choice questions will be given at the beginning of every lab. Student will be allowed to use all old lab reports and homework assignments. Quizzes can not be made-up, so arrive on time.

ATTENDANCE:
Each students is expected to attend every lab. Make-up labs will only be given under extenuating circumstances beyond the student's control. If a student knows in advance of an absence, inform the instructor as soon as possible.

SAFETY:
No food or drinks are allowed in lab. In addition, student must wear closed-toed shoes at all times. Slippers are not allowed. Lab coats must be worn at all times.

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 SCHEDULE:

Week	Date	Lab
1	Jan 16	Martin Luther King Day – No Lab
2	Jan 23	Lab 1: Position
3	Jan 30	Lab 2: Motion
4	Feb 06	Lab 3: Seasonal Stars
5	Feb 13	Lab 4: Acceleration of Gravity
6	Feb 20	Presidents' Day – No Lab
7	Feb 27	Lab 5: Focal Length
8	Mar 05	Lab 6: Apparent and Absolute Magnitudes of Stars
9	Mar 12	Lab 7: Earth's Changing Surface
10	Mar 19	Lab 8: The Parsec
11	Apr 02	Lab 9: Parallax and Distance
12	Apr 09	Lab 10: HR Diagrams
13	Apr 16	Lab 11: Milky Way Scales
14	Apr 23	Lab 12: Galaxy Classification
15	Apr 30	Presentations