

<p>CHAMINADE UNIVERSITY PHY-140L: INTRODUCTION TO ASTRONOMY LAB COURSE SYLLABUS – FALL 2011</p>
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**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. Makeup 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.

**TENTATIVE SCHEDULE:**

Week	Date	Lab
1	Aug 22	Lab 1: Position
2	Aug 29	Lab 2: Motion
3	Sep 05	Labor Day – No Lab
4	Sep 12	Lab 3: Seasonal Stars
5	Sep 19	Lab 4: Acceleration of Gravity
6	Sep 26	Lab 5: Focal Length
7	Oct 03	Lab 6: Apparent and Absolute Magnitudes of Stars
8	Oct 10	Discoverer's Day – No Lab
9	Oct 17	Lab 7: Earth's Changing Surface
10	Oct 24	Lab 8: The Parsec
11	Oct 31	Lab 9: Parallax and Distance
12	Nov 07	Lab 10: HR Diagrams
13	Nov 14	Lab 11: Milky Way Scales
14	Nov 21	Lab 12: Galaxy Classification
15	Nov 28	Presentations