

<p>CHAMINADE UNIVERSITY PHY-140L: INTRODUCTION TO ASTRONOMY LAB COURSE SYLLABUS – SPRING 2011</p>
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**Instructor:** Matthew Cochran  
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**Office:** Henry Hall 7  
**Office Phone:** 739-8361  
**Office Hours:** Monday through Thursday 12:00 to 1:00 or by appointment  
**Course Time:** Monday from 2:00 to 4:50  
**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 (13) . . . . .	40%
Homework (13) . . . . .	30%
Quizzes (13) . . . . .	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.

**TENTATIVE SCHEDULE:**

Week	Date	Monday Lab
1	Jan 10	Position
2	Jan 17	No Lab
3	Jan 24	Motion
4	Jan 31	Seasonal Stars
5	Feb 07	Newton's Laws and Gravity
6	Feb 14	Spectra
7	Feb 21	No Lab
8	Feb 28	Earth's Changing Surface
9	Mar 07	Seasons
10	Mar 14	Parallax and Distance
–	Mar 21	No Lab
11	Mar 28	Apparent and Absolute Magnitude of Stars
12	Apr 04	The Parsec
13	Apr 11	Parallax and Distance
14	Apr 18	HR Diagrams
15	Apr 25	Milky Way Scales