

Instructor: Lancelot L. Kao
 Office: Science 400
 Office Hours: By Appointment
 Office Phone: 415-239-3654
 Schedule Time: Wednesday, 3:30 – 6:30 PM
 Room: Science 311
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Course Description:

Lab-3

Recommended to be taken concurrently with, or after ASTR 1, 14, 17, 18, 19, or 20.

Through direct investigation, students will learn the motion and appearance of the night sky, investigate astronomical objects such as stars, planets, and nebulae, and become familiar with modern observational tools and techniques. CSU/UC

Course meetings are divided into two parts. The first segment of the lab in each week will consist of reviewing the theory and demonstrating laboratory procedures. Before you show up for the lab, I will expect that you have reviewed or read the topic from any introductory astronomy textbook. Afterward, you will have the remaining two hours to perform the laboratory. You must work in groups of less than four students. At the end of each laboratory, you are required to turn in your laboratory write-up. **I will not accept late lab report.**

If you need course adaptations or accommodations because of are disability, if you have emergency medical information to share with me, or if you need special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible.

Suggested Material:

The Edmund Sky Guide, Edmund Scientific, ISBN 10134-94800
 A Planisphere/Star Finder
 A science notebook (preferably with graph paper for lab assignments)
 A scientific calculator & ruler
 An introductory level astronomy textbook
 Magazine: *Astronomy, Sky & Telescope*
 Other: supplementary notes

Grade:

The grade will be based on attendance, lab assignments, one midterm exam, and a final / group project. The distribution of the grade will be as follows:

attendance	10%
lab assignments (14)	50%
exams	40%

You are allowed to have two absences during the semester. If you miss more than **two** labs **and** you do not inform me of your situation, I may elect to **withdraw** your enrollment if the absences occur before midterm exam; afterward, this will result in a grade adjustment. The attendance policy is effective in the 3rd week of instruction (**February 3, 2010** onwards). Furthermore, if you

arrive late or leave the lecture early by more than 10 minutes (**ALE**), I will count as **one hour of absence**. In addition, if you are **consistently late** or leave the lecture early by more than 5 minutes, I may elect to **withdraw** your enrollment. Otherwise, it is **your responsibility** to drop the course if you decide the course is not suitable for you, and the last day for student/instructor initiated withdrawal is **April 23, 2010**.

You are required to turn in your lab assignment at the end of each lab. Each lab assignment has a maximum of 10 points, and I will drop the two lowest lab scores. The math review and the graphing technique labs will not be included in grade assignment; however, you must complete these two labs, or there will be a deduction from your final grade.

The final individual course grade assignment will be based on a normalized distribution of cumulative raw scores of all students. The assignment of grade is:

A	90% and higher
B	between 75 - 89%
C	between 60 - 74%
D	below 60%
F	below 40%

If you have any further questions or concerns, please feel free to discuss them with me.

Tentative Schedule:

Date	Lecture Topic	Lab
1/20	Introduction	S-311
1/27	Basic Math Review & Graphing Technique	S-311
2/03	Angles & Parallax	S-311 & Observatory
2/10	Simple Optical Systems	S-311
2/17	Telescopes	S-311 & Observatory
2/24	Observation of the Sun	S-311 & Observatory
3/03	Solar Rotation	Computer Lab & S-311
3/10	Spectroscopy I	S-311 & Observatory
3/17	Midterm Exam	S-311
3/24	Spectroscopy II	S-311 & Observatory
4/07	Stellar Classification	S-311
4/14	HR-Diagram	S-311
4/21	The Milky Way	S-311
4/28	Galaxies	S-311
5/05	Hubble Deep Field	S-311
5/12	Hubble Constant I	Computer Lab & S-311
5/19	Hubble Constant II	S-311
5/26	FINAL Exam	

Note:

Computer Lab is at Batmale 301 PC Lab I (Academic Computing Resource Center) .