Astronomy 10 Lab

***NOTE: THE AST10 LAB IS NOT PART OF THE AST10S or AST 10G COURSES! YOU DO NOT NEED TO TAKE THE LAB TO TAKE THE COURSE. ***

***Ast 10L is a separately graded 1 credit GE course. * But you must have taken or are currently taking Ast10G or 10S to take the lab, except during the Summer Sessions.**

ENROLLMENT will be confirmed IN YOUR LAB SECTION DURING THE FIRST MEETING OF CLASSES, so YOU MUST BE THERE.

There is ONE lab section each week which meets Fall either Monday, Tuesday or Wednesday night at 8:10 p.m. in 55 Roessler Hall. In Spring and Summer the labs meet from 9:10 -11:40 p.m. You must attend the section you signed up for.

For EVERY Astronomy lab, you will need to bring :

(1) the LAB MANUAL, which is available for purchase at DAVIS Copy MAXX 232 Third STREET (two blocks east of the SOCIAL SCIENCES BUILDING). - Cost: approx. $18.

(2) a RED LIGHT, for example a bike light (not a reflector) would do fine, or a small red LED hand light.

(3) a STAR WHEEL, which is available for purchase (approx. $6-8) at the UCD Bookstore on the main floor, usually under the "Lab Supplies" sign

Please remember to dress somewhat warmly as you will have to stay on the roof of the Physics building from about 9 p.m. to 10:30 PM or 10 p.m. till 11:30 p.m.

The grades assigned are based primarily on:
Participation, attendance, in-lab quizzes -15%
The proper completion of the lab each week (which includes submission of the report sheet at the end of the lab) - 60%
The final practical exam, which is given during the last lab period (the last weeks of classes) - 25%

Goals

The goal of this lab course is to allow the student to gain a reasonably broad but detailed knowledge of the night sky and what it contains, along with experience in simple observational methods and the use of a telescope. With this in mind, it is easy to understand that the lab is intended to be somewhat challenging, yet accessible to the student with little or no astronomy experience. By the end of the quarter, the student should know:

1. **Major constellations and asterisms (including the signs of the Zodiac) visible this season**
2. **Bright stars and planets visible this season**
3. **The basics of using star maps and understanding celestial coordinate systems**
4. **How the sun, moon, and stars "move" in the sky during the year**
5. **The use and characteristics of telescopes**
6. **How to visually observe objects, such as the moon, planets, star clusters, and nebulae**

Which actual lab is done depends on the phase of the Moon, which changes throughout the month and year. Below is a sample schedule from Spring 2013.

Spring 2013 Astronomy Observational Labs

The following lab schedule will be followed if the weather is clear – in the case of cloudy weather we may substitute another lab that does not require direct observations of the sky.

		Moon Phase
April 1 - 3	**Star Names, Maps, & Constellations**	**Last Q – April 2**
April 8-10	**Telescopes (Jupiter)**	**New – April 10**
April 15 - 17	**Moon**	**First Q – April 18**
April 22 - 23	**Time & Diurnal Motion**	**Full – April 25**
April 29 – May 1	**Planets (Saturn)**	**Last Q – May 2**
May 6 - 8	**Deep Sky**	**New – May 9**
May 13 - 15	**Double Stars**	**First Q – May 17**
May 20 – 22	**Spectra**	**Full - May 24**
May 28 - 29	**Deep Sky (12-inch) & Review**	**Last Q – May 31**
May 27	**(Memorial Day Holiday)**	
June 4, 5, 6	**Practical Exam**	**New – June 9**