

ASTRO 293 — Observational Astronomy Laboratory

Spring 2003, Section 1

| | |
|--|---|
| Instructor: Dr. Christopher Palma Office: 508 Davey Lab Phone: 863-6091 Email: cpalma@astro.psu.edu | Time: T 7:35 – 9:30 Location: 216 Osmond Office Hours: T 3–5/F 2–3 or by appointment OPTIONAL Text: An Introduction to Error Analysis 2nd Edition – J. Taylor |
|--|---|

Course website: <http://www.astro.psu.edu/users/cpalma/astro293/>

Course description:

The purpose of this class is to introduce you to the methods of practical observational astronomy. This class will require you to use the observing facilities on the roof of Davey Laboratory and to analyze astronomical data with the UNIX workstations in 216 Osmond. The Tuesday evening meetings will be used to introduce the background material necessary to complete the labs, to discuss the lab procedures, and in many cases time will be provided to work on the labs themselves. In order to complete the labs you will need to spend time outside of the scheduled class period. This is especially true in the case of observing labs; the weather during the Spring can be bad, so plan to observe whenever a clear night presents itself.

This is a laboratory class, so grades will be determined based on lab reports. You will be required to hand in a neat, typed lab report at the beginning of class on the day the lab is due. No late lab reports will be accepted. Your lowest grade among all of your lab reports will be dropped, and will not be counted towards your final grade.

I expect that you will discuss the labs with each other and with me, and you are also allowed to work together to complete any observing and computer exercises. However, I require that each of you turn in an individual lab report that contains entirely your own work. Please do not collaborate on the writing of the reports. Note that all of the University and Astronomy Department policies on academic integrity apply to this class. Please see the Department's website on academic integrity (<http://www.astro.psu.edu/deptinfo/integrity.html>) if you are unfamiliar with these policies.

Current List of Labs

- Lab 1 : Introduction to Positional Astronomy
- Lab 2 : The Nature of Light
- Lab 3 : Stellar Spectra
- Lab 4 : Binary Stars & Stellar Masses
- Lab 5 : Parallax & The Color-Magnitude Diagram
- Lab 6 : The Distance to a Star Cluster
- Lab 7 : The Age of a Star Cluster

There will be a “final lab” in lieu of a final exam. It will require more work than the others, and will count for twice as much as a normal lab. The grade on the final lab will not be eligible to be dropped.