

ASTR 3520
Astronomical Observations and Instrumentation II: Spectroscopy
Fall 2007

Lab 2:
Due: 18 September 2007 (Tuesday in lab)

Purpose:

In this lab, you will be asked to take spectra with the 24" SBO spectrograph.

Find some reasonably bright stars such as α -Lyra, Albirio, or any object you deem interesting such as the Wolf-Rayet central star of NGC 6888 in Cygnus, or P-Cygni. These are dimmer and will require longer exposures, but make for very interesting targets. Obtain a set of well-exposed spectra, including calibration lamp exposures and dark frames having exposure times identical to your stellar spectra. You will have to select the star, wavelength range, and will have to obtain some test exposures to determine the correct exposure times for your spectra. Please observe two adjacent wavelength ranges to cover at least 1,500 Angstroms of the spectrum. I recommend the region in the red part of the spectrum centered on H α since this is where the QE of the CCD is best. However, other wavelengths are acceptable if you can justify it.

Collect your calibration lamp, dark frame, and science data, and place them in a directory on COSMOS for future reductions.

Turn-in a description of your observing session, log sheets detailing the exposures you took, and a summary of the data that you acquired.