AST1002: Extra Credit Projects
Spring 2004, Section 0426
Description of Projects
16 February, 2004

Revised 18 February, 2004

There has been an interest expressed in extra credit projects. I describe several below. I emphasize these are purely optional; do as many or as few as you want. The packet is not available on the web. You will have to see me in class or in my office.

(1) Trips to the Student Observatory on the campus;
(2) Text book, laboratory-style exercises; and
(3) two night sky projects

These are designed to enhance the material we are discussing in class and give you 'hands-on' experience with telescopes, data and problems.

Student Observatory

The student observatory is open on Friday evenings from 8:30pm until 10:00pm. Attend these sessions and describe your activities and how they may relate to the material we are studying in class; a couple of paragraphs will suffice. Discuss what you saw and what instrument(s) you used. Have the TA or Faculty member in charge of the activities give you a token of attendance and turn it in with your 'report'. Remember these are nights for the general public (which includes you) and are not primarily laboratory experiences for students. Please do not hinder the TAs, nor slow the access to telescopes by the public. Any writing that you do should be away from the observatory. The sky changes only slowly. Allow at least three (3) weeks between visits. I will accept no more than three (3) descriptions of your visits. You will not be penalized for your efforts; I will give you at least 1 point of extra credit for an honest attempt.

Laboratory Style Exercises

You are encouraged to write up several exercises that I am handing out. You may work on the problems in groups, but the write-up must be in your own words and express your understanding of the material. Some of the exercises are more laborious than others; this is reflected in their numerical value.

On the following pages (see me for these descriptions, they are not on the web), the exercises are indicated along with their value and their due dates. I have tried to spread them through the material and the remaining weeks of the course. Most should NOT take you more than 30 minutes of work. However, the observations of the setting point of sunset will take you until the very end of the semester. If you have questions do not hesitate to ask me.
Night Sky Projects
(a) Constellation Project
(b) Moon Project

These are a separate projects the description of which is included in this packet of materials.

The level of difficulty for these problems is roughly indicated by the value of the exercise. I will give you **one point of extra credit** towards your final grade for every **four points you earn on each project**. Thus, there are approximately 21 points of extra credit available to you towards your grade in the course, based on these exercises. Recall that one letter grade, at the end of the term, is approximately 12 points.

I have suggested one problem due per week, starting with the constellation project. Some are very simple and some will require a little thought and effort. That is a lot of work, but I suggest you try to do at least three (3) of these exercises. They are of value to you, and I hope you will enjoy them.