

Extra Credit

On Exams:

Astronomy in the News. Credit: 1 point per question, two questions on each exam

Sky Watch Project:

Identify objects or constellations containing objects such as supernovae and black holes that are relevant to the course. In addition to the extra credit, this project is intended to introduce you to the night sky and to develop a sense of appreciation for our ancestors who puzzled out so much with no benefit of telescopes or astronomy classes.

Keep a log of your observations explaining where you were, what time it was, what direction you were looking and what you saw or did not see. For each object, give a brief summary of why the object you are observing is important and relevant to the class. Record enough information so that I can tell you actually went out at night and tried to see something. Noting the location and phase of the Moon can be useful. You can use a smart phone astronomy app, but must convince me you actually found the stars in the sky with your own eyes. See **What to look for in SkyWatch: A Grader's Perspective** posted on the web site.

You are encouraged to work together, but you must turn in *independently written* reports.

As an example, keep an eye on Betelgeuse in Orion. Other opportunities are to locate Sirius A, the Crab Nebula, Cassiopeiae A, Cygnus X-1, Sagittarius A, and other objects we talk about in class. This is a “naked eye” project. Neither binoculars nor telescopes are necessary. Some of these objects can be seen with the naked eye and some cannot, but you can locate the region in the sky where they are.

Some things we will talk about can be seen now, but not later in the term; some can be seen only later in the term and not now. Some can only be seen in the evening, others only in the early morning. You need to check when various things can be seen at what time of night and when in the season.

An important part of this exercise is learning to use a sky chart to orient yourself with respect to the sky. For orientation, check out the web site Whole Sky Chart from the link on the class web site. This allows you to enter a time and find what is observable then. It does not name all the objects, so it is only a starting place.

Due at the time of each hourly exam. If you do not turn in a sky-watch report at each of the five deadlines, you lose credit for that opportunity. You can only get credit for each object once, but it is never too late to try any object you have not yet done. Doing 4 or 5 objects each time usually constitutes a good report.

You cannot see the sky, and hence cannot do this project, when it is cloudy! Keep an eye on the weather and take advantage of clear nights. It is best not to put this off until the last minute and find yourself frustrated by clouds.

All reports must be typewritten on 8-1/2x11 inch paper.

Credit: up to 5 points added to each exam.