

Astronomy 202 Fall 2006

Term Essay

Each student is required to write an essay on a star of his or her choice. Your choice must be approved by the instructor before you start writing. A given star will be assigned to only one student, on a first-come, first-served basis. Your star must be a *star*, not a black hole or some other sort of object. The Sun is disqualified, and stars that have been used by other students in previous years will not be allowed. But don't worry, there are lots of others to choose from.

The essay must include a discussion of some recent astronomical research on your star and make reference to at least one paper from an archival research journal.

If your star is not approved by me, or if you submit an essay on a star assigned to another student, your essay will not be accepted.

Your essay should include:

- The names of the star
- Astronomical star catalogs in which it is found
- Its location, including distance from the Earth and the accuracy to which the distance is known
- Its apparent and absolute magnitudes
- Its spectral type and luminosity class
- Whether or not the star is variable. If so, provide details.
- Whether or not the star is a member of a binary system. If so, provide details including its period, velocity curve, eccentricity, luminosity curve, etc.
- Based on the above data, a brief "life history" of the star, summarizing the stages it has passed through and will pass through as it evolves, and the likely end product of its evolution.
- Other features of interest.

For many stars, the last item has the potential to be the most interesting part of your essay.

Sources of information:

Some information is available on various astronomical web sites. You can and should also make use of a variety of other sources including semipopular journals such as *Sky and Telescope*, *Scientific American*, *Physics Today*, *New Scientist*, *Science*, or *Astronomy*. All of these are available either on-line or in the periodicals section of the Taylor Library. You **must** also discuss the results in at least one paper from an archival research journal. The principal astronomy journals include *Astronomical Journal*, *Astrophysical Journal*, *Astronomy and Astrophysics*, and *Monthly Notices of the Royal Astronomical Society*. These are available either on-line or in the

periodicals section of the Taylor Library. The staff in the library are always happy to help you find journals or articles.

Take the material from your sources and distill it into a coherent essay written in your own words. When you refer to ideas or data taken from elsewhere, you must include a reference to the source. All articles, web sites, books, or other sources used must be properly acknowledged. All of your sources must be listed in an accepted format at the end of your essay. Failure to give proper credit to your sources is **plagiarism** and is not acceptable. Similarly, copying and pasting text from sources is also **plagiarism** and is not acceptable.

Evaluation criteria:

This essay is worth 15% of your mark for this course. Your mark will be based on the thoroughness of your work, the clarity and coherence of your presentation, the accuracy of the material presented, the correctness of your reasoning, correct and complete references, as well as correct grammar and appropriate writing style. There is no set length that is required, and as long as all of the required information is included, brevity is encouraged.

This essay is due at the last class, on Tuesday, December 5, 2006. Essays handed in after the last class will be docked marks.

Plagiarism:

Plagiarism is a serious academic offence. Any time you make use of information or ideas that come from someone else's work, you **must** give credit to that other work. Failure to do so is dishonest – it amounts to a claim that the results you present are your own, when in fact they are not. Any attempt to take credit for someone else's work is plagiarism, *whether it is intentional or not*. Examples include copying someone else's assignment solutions; copying blocks of text from a source without acknowledgement, be it a website or a book; quoting results without acknowledgement; or using someone else's reasoning or arguments without acknowledgement. *None of these practices are acceptable and will be penalized.* **In an essay, the way to avoid plagiarism is simply to give credit to your sources by properly citing the original work.**

Penalties for plagiarism will vary depending on the seriousness of the offence. They can range from a grade of zero on an assignment or essay, to failure of a course, to expulsion from the University.

If you have any questions at all on this issue please consult with your instructor.