ASTR Lab Project Guidelines

Fall 2019.

There are two major projects in this course: Visiting an Observatory and the Term Medley.

The information given below is subject to change if necessary.

Observatory Visit Report (due **December 2-6**, worth 10 points):

Just as in ASTR 1010, please visit a local observatory once during the semester and write a brief report about that experience. Write the report by filling out the observing report found on the GSU Astronomy Lab Website Suggested local observatories: ***Always** check the weather before going!

- Hard Labor Creek Observatory (HLCO): Open House Dates (TBD), begin shortly after sunset, located about 50 miles east of Atlanta. Website: `http://www.astro.gsu.edu/HLCO/`
- Fernbank Observatory: Open every Thursday and Friday from 9:00-10:30 p.m., located west of Decatur. Website: `http://fsc.fernbank.edu/observatory.htm`
- Georgia Tech Observatory: Open the 2nd Thursday of each month at 7 or 8 p.m. (depends on sunset), located on the GT campus. Website: `http://www.astronomy.gatech.edu/`

Additionally, GSU offers several on-campus observing opportunities:

October 3, October 8, November 4, and November 11

(start times vary between 7 and 8:30 p.m., depending on sunset). Attending one of these events counts as an observatory visit. Please e-mail or speak in person with your lab instructor in advance if you would like to attend one of these sessions.

Term Project (multiple due dates, worth 20 points total):

This is an open-ended project intended to convey your understanding of a specific topic in astronomy. The format of the project is up to you! Sample formats are given on the next page.

Important due dates for Project Medley:

Nov. 4 - Nov. 8	Choose a topic (In class or e-mail to lab TA by 7 p.m.). Worth 2 points.
Nov. 11-15	Turn in an outline of your project (bring to lab or e-mail by 7 p.m.). This should be around 1 page, typed, double-spaced. Worth 3 points. Describe what specific topics you will include and how you plan to do that. Include at least 2 sources you're thinking of using.
Nov. 18-22	Present your project in lab. Attendance is required.
	Turn in your final project.

Term Project Formats List

Choose something that you think you can do well!
These are just suggestions—**feel free to ask about using a format not listed here**.

- **Paper:** Write 5 full pages (not including citations or title page), double-spaced, in 12 pt font. Your goal is to inform the reader about your chosen topic, so be factual and include relevant background information. Include in-text citations.
- **Children's Book:** Convey accurate scientific information (no made-up facts) in an engaging, clear way that a child would understand and enjoy. Tell a story! You will be graded on the construction quality of your book (will it fall apart if we give it to a 6-year-old?), the accuracy of the information you include, and how engagingly you convey that information.
- **PowerPoint Presentation**: Present a 5 minute talk using PowerPoint (or equivalent) as a visual aid. Your goal is to inform the audience about your topic in both an engaging and factual way. You will be graded on the accuracy of your statements and how well you convey the information. Please cite your sources on your last slide, and e-mail the lab TA a copy of your slideshow. You must present your talk on November 18-22.

*****If you are not doing the above three projects,** then in addition to your creative project you must also give a 2 minute description of your project in class. Lastly you must also write a 1-page (minimum) paper describing your project and any relevant or useful scientific information about it (basically, everything you are going to say in your presentation). Cite your sources in this paper.

- **Poster or Craft Project:** Create a poster or other craft project about your topic, using your chosen medium to convey as much information as possible. Posters should be large (at least 18 inches per side) and stiff, so they will not fall down if placed against a wall.
- **Sundial:** Create a sundial that is sturdy (will not fall apart) and usable. After building it, attempt to use your sundial at least 10 times over 2 weeks and keep a physical log of these attempts.

A note about appropriate sources: Wikipedia is not an appropriate source to cite for this research project. You may use it to get a general overview of your topic, but when stating facts you must cite reliable professionally-published or reviewed sources such as textbooks, scholarly papers, science journalism (Scientific American, Popular Science, etc.), or materials from academic institutions (NASA, universities, etc.).