

Astro 104 Group Presentation Project

The purpose of this project is to allow you to explore in more detail an aspect of solar-system astronomy that especially interests you. I hope that through this project, you will not only build valuable research and presentation skills, but will also come to feel like an “expert” on your chosen topic. This sort of confidence is an important step in developing enthusiasm for and literacy in not only astronomy, but science in general as well.

For the project, you will work with two other people from the discussion section. Each group will research a topic from the list below (or select another appropriate one) and prepare a five- to ten-minute presentation for the class. We’ll hear one presentation at the beginning of most sections starting the week of Feb. 9. I will schedule presentations every month or so by asking for volunteers for the upcoming few weeks; this will allow you to schedule your talk for a convenient time. I should warn you against waiting too long, however! Not only do you want to avoid things piling up toward the end of the semester, but I will likely be grading more easily toward the beginning (just as a result of not having seen many other talks yet).

Your presentation should involve all group members, and should be designed to teach the rest of the class about what you have learned in your research. This means you need to consider carefully what to include; ask yourself what your audience will be interested in hearing. If you’re presenting scientific conclusions, you should tell us how they were reached (i.e., what evidence is there for the conclusions?) and how well-accepted or controversial they are. Visual aids (demonstrations, posters, overheads, slides, videos, computer graphics, etc.), handouts, and other methods of keeping the class involved and interested are strongly encouraged, as is practicing your presentation at least once before class time. You should also be prepared to answer questions from the audience at the end of your talk. I will be happy to help with any part of your project by giving you starting points for the research, suggestions on the presentation, etc. In fact, I highly recommend that you consult with me at least once before you present.

After your presentation and any questions, we’ll have a brief comments session in which your audience will have the chance to give you feedback on your presentation. I’ll do my best to make this as non-threatening as possible; the goal is to provide you with constructive comments and suggestions that can help you with future projects. What is said during this session will not affect your grade. I will assign a grade on a scale of 1 to 10 based on my perception of the overall effectiveness of your presentation, including your preparedness; the thoroughness of your research; your use of visual aids, etc.; the contributions of each group member; and the extent to which you make your presentation interesting, understandable, and relevant to your audience. I’ll also give you written comments in addition to the numerical grade. This project will count for 5% of your final grade (or about 2 ½ times a normal homework assignment).

The topics below are listed in approximate chronological order based on the syllabus; in other words, topics near the top of the list will be most relevant to what we discuss in the course near the beginning of the semester. I don’t expect to hold to this exactly, but it should give you an idea of the rough order in which things will come up. I’d like to minimize repetition of topics, so people who present early will also have a larger choice of what to talk about. Also, please note that the topics as given are very broad; you will have to do some significant narrowing of focus (I’ve made some illustrative suggestions in italics, but feel free to go beyond these). Other topics are certainly encouraged, but please check with me first if your group has an idea not listed here.

1. **Archaeoastronomy**
ancient Asian, Arabic, Native or Central American astronomy
structures such as Stonehenge or the pyramids
2. **Historic Solar-System Discoveries or other breakthroughs**
the Copernican revolution
the invention of the telescope
planet or comet discoveries
3. **Humans in Space**
the space shuttle program
Mir or the international space station project
colonization of other planets
4. **The Hubble Space Telescope**
development, design, early problems and repairs
instruments designed or built at UW, or local involvement with Hubble projects
images and scientific results from Hubble
5. **Space Missions**
Galileo, Voyager, Pioneer, Apollo, Cassini, SOHO, etc.
6. **Solar System Origins**
formation of the Sun and planets, or origin of terrestrial elements
the life story of the Sun
recent observations of possibly newly forming planetary systems
7. **Extinction Theories, or What Killed the Dinosaurs?**
asteroid theory, Nemesis (solar-companion) theory
8. **Moons of Jupiter and Saturn**
volcanoes on Io
oceans on Europa
Titan and its atmosphere
9. **Famous Comets**
SL-9 and the Jupiter impact
recent appearances: Halley, Hyakutake, Hale-Bopp
historic comets
10. **Extraterrestrial Life**
the Martian meteorite
extrasolar planet discoveries
aliens in popular culture
SETI or other efforts to communicate with extraterrestrial life
11. **Miscellaneous**
astronomy in literature, art, religion, popular culture, etc.
astrology in history or modern life
the life and work of a famous astronomer (e.g., Galileo, Maria Mitchell, Carl Sagan)

Feedback on Group Presentation Project

Astro 104, Spring 1998

Group members:

Date:

Topic:

Content:

(Was the topic appropriate and the amount of material reasonable? Was the group knowledgeable about their topic and able to respond to audience questions?)

Presentation:

(Did the group members participate equally? Were visual aids and other strategies well used? Did the group appear relaxed and rehearsed? Did they make the topic interesting to the audience?)

Other Comments:

Class Comments:

Grade out of 10 possible: