

# ASTR 1000 Descriptive Astronomy

## Part I Project

### Purpose

Demonstrate your understanding of the fundamental ideas and development of astronomy.

### What it is

Your project is a formal way to demonstrate that you understand the content covered in Unit I of the course. It should thoroughly fulfill one of the unit objectives.

### Part I learning objectives

- Rank the sizes of planets, stars, galaxies, and the universe. Qualitatively relate the size and separations of the Sun and planets in the Solar system.
- Describe and explain how the sky changes throughout the day, month, and year. Also includes differences between different places on Earth.
- Describe the ways that Earth changes position and orientation over time.
- Identify the characteristics of, and conditions creating, Solar and Lunar eclipses, planetary transits, and occultations.
- Identify key advances in Western astronomy from Babylonian foundations until the Copernican revolution.
- Identify and interpret the contributions of Copernicus, Galileo, Brahe, Kepler, and Newton to astronomical thought.

### Possible projects

These are some ideas for a project. You are free to suggest others. I will approve of projects that demonstrate your mastery of the required unit objectives.

- A concept map describing astronomical time cycles and their orbital origins.
- A model demonstrating solar and lunar eclipses.
- A poster about an ancient or Renaissance astronomer's contributions.
- Multiple choice quiz questions covering the unit objectives (homework questions are excluded).

### Components

**Sign up:** Select a project. Describe succinctly what form your project will take, and which of the unit objectives it will cover.

**Rough Draft:** Your project itself. The more complete it is, the more useful feedback your classmates and instructor can provide.

**Rough draft feedback:** Feedback to your classmates on how you see the project addressing the objectives.

**Final Project:** The completed project.

**Final project feedback:** Summarize what the project teaches about its objectives.

## Dates and Deadlines

|        |                          |
|--------|--------------------------|
| Jan 26 | Project assigned         |
| Feb 6  | Rough drafts due         |
| Feb 11 | Rough draft feedback due |
| Feb 13 | Project due              |
| Feb 18 | Final project feedback   |

## Scoring

### Rough Draft (10 points)

This is the full project, but not polished.

|    |   |
|----|---|
| 10 | Contains all parts of the project, addressing all of the specified objective. |
| 6  | Submission lacks substantial portions of the project.                         |

### Rough Draft feedback (10 points)

For each draft that you review, explain how the project addresses its learning objectives.

|              |  |
|--------------|--|
| 10           | Summarizes how each draft covers its learning objective. |
| proportional | Misses assigned drafts or associated objective.          |

### Final Report (30 points)

This is graded by the student, with the instructor having veto power.

Is it easy to understand? Does it communicate the objective clearly, correctly, and completely?

### Final report feedback (10 points)

Summarize what each project that you review teaches about its learning objectives.

|              |  |
|--------------|--|
| 10           | Summarizes what each project teaches about its learning objective. |
| proportional | Misses assigned projects or associated objectives.                 |