# Astronomy (AY) 101

Title: Introductory Astronomy

Prerequisite: none

General studies: Natural Science

Credit Hours: 3

#### **Student Profile**

If you aren't seeking to continue to higher level astronomy courses, but want a good survey of the subject, AY 101 is a good option. AY 101 is taken primarily by students to satisfy part of their N requirement in the University Core Curriculum. This course is *not* intended for students planning to major in physics. (Physics majors on the Astrophysics Track should instead take AY 203, AY 204, and AY 206)

### **Course Profile**

This course surveys in one semester the history of astronomy, the nature of planetary systems (particularly our own Solar System), as well as the nature and evolution of stars, galaxies, and the Universe. Some of the basic questions discussed in AY101 include:

- Why does the Earth have seasons?
- Why does the Moon have phases?
- Why did ancient people believe the Earth is not moving?
- Why are there different kinds of planets in our Solar System?
- How do stars shine?
- How do stars evolve and die?
- What are black holes?
- How do we know our Universe is expanding?
- Why is the sky dark at night?
- What is the nature of "dark matter" and "dark energy"?
- Is there life elsewhere in the Universe?

#### **Format**

Astronomy 101 meets two or three times a week for 3 hours. A great many astronomical images from ground- and space-based telescopes are used throughout the course. The course also includes observing sessions using the telescope on the roof of Gallalee Hall.

### **Follow-up Course**

If you plan to apply Astronomy 101 toward the N requirement of the University Core Curriculum, Astronomy 102 must also be taken.

## **Alternative Courses**

If you would like a more in-depth survey of planets, stars, galaxies, and the Universe, then AY 204 (Solar System Astronomy) and/or AY 206 (Astronomy beyond the Solar System) may be better choices for you. AY 204 and AY 206 take 2 semesters to cover the same topics as AY 101 does in 1 semester. AY 204 and AY 206 also use more math (algebra and trigonometry) to enrich the subject further. AY 204 can also be combined with AY 203 (Observational Astronomy) to satisfy the N requirement of the University Core Curriculum.