

# 1. The Sky Tonight

Each lab class will have a session scheduled in the Rauch Planetarium to help you learn how the sky changes hour by hour and with the seasons. In another session you will learn about the bright stars, and the planets that are currently visible. It will help if you work on this with a star chart of your own, such as you might find in an astronomy book, or in one of these free resources:

<http://www.skymaps.com/> Monthly sky maps

<http://www.heavens-above.com/> Tonight's sky including artificial satellites

<http://www.skyandtelescope.com/observing/ataglance> Weekly guide and news

<http://www.stellarium.org/> Beautiful planetarium software for your computer

If want to pursue this and learn the night sky well, you should consider getting a planisphere “star finder”. This is a rotating map of the sky that will show you how it appears on any date and time. Inexpensive ones may be available from a bookstore or the Planetarium.

*Stellarium* is a desktop planetarium that displays the sky in a photo-realistic view. It is not a static map, but a dynamic moving picture of the sky as the Earth's rotation brings an ever changing view past you. It is a very good way to prepare for this lab, or to use after your lab to learn more.

In the planetarium session you will see

- The Sun's path through the sky at this time
- How the Sun's path changes with seasons
- Where is the Moon in the sky a few days after *New Moon*
- Where is the Moon in the sky at *First Quarter*
- When does the *Full Moon* rise?
- When does the *Last Quarter Moon* rise?
- Where are the bright planets at this time?
- How to find the Big Dipper and the North Star
- How to find the Summer Triangle
- How to find Orion in the winter sky