

Name: _____

Netid: _____

Date of Session: _____

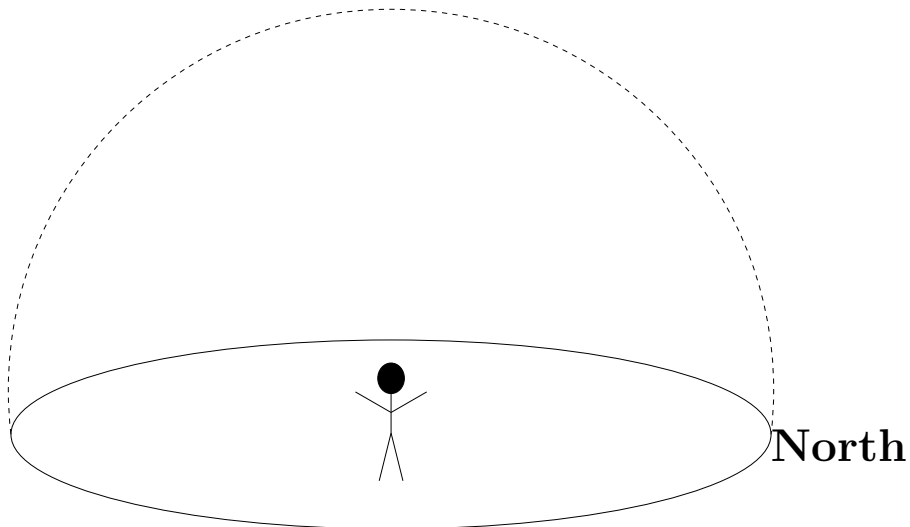
Report is due 1 week after this date.

Staerkel Planetarium Session

Purpose: To learn about the Celestial Sphere and the apparent motions of celestial objects as observed from Champaign-Urbana and other parts of the world.

What to do? Attend the Staerkel Planetarium sessions and answer the questions below.

1. Below is a celestial sphere for an observer in Champaign-Urbana (latitude of 40° N). Mark the following points and great circles on your drawing:
 - (a) zenith, horizon, the cardinal directions (N,S,E,W) on the horizon plane;
 - (b) north celestial pole and celestial equator
 - (c) the north star—Polaris
 - (d) mark the region where you see circumpolar stars



2. On which great circle are the zodiac constellations located? On which great circle would you find the apparent location of the Sun?
3. What are circumpolar stars? Can you see any in the skies of Champaign (weather permitting)?

4. What causes the change of seasons on the Earth?

5. How does the location of sunrise/sunset on the horizon change over the course of a year?

6. Describe and *explain* the most surprising or least intuitive thing you learned.