

# Astro 101: Midterm topics / potential questions

NO NOTES are allowed. You need to bring a working red flashlight and your Planisphere to the exam. The most effective way to study for the multiple-choice/short answer part of the midterm is to review all of the quizzes.

- Working definitions of the following terms:  
Altitude, Azimuth, Right Ascension, Declination, Ecliptic, Zodiac, Plane of the Solar System, Meridian, Transit, Midday, Local (Apparent) Solar Time, Sidereal Time, Zenith, North Celestial Pole, Celestial Equator
- Convert from local time to Eastern Time for East Lansing (memorize it)
- Sun's RA and Dec for each of the equinoxes and solstices (memorize it)
- Approximate RA of Sun for any month interval (e.g. May 21, Nov 21, etc.)
- Correspondence of rising and setting points for celestial objects  
e.g., given a rising point, predict setting point.
- Approximate rising point, setting point, midday altitude of sun (fraction of the way from horizon to zenith) at equinoxes and solstices for East Lansing. (Similar to quiz 3 & 4.)
- Given two of the following three quantities, be able to find the third: Sidereal Time, Local Solar Time, RA of the sun. (Similar to quiz 3 & 4.)
- Where to generally find planets and the moon.

PLANISPHERE Using your Planisphere, be able to determine:

- Rising and setting positions of celestial bodies to nearest 16<sup>th</sup> of circle  
e.g., N, NNE, NE, ENE, E, etc.
- Local times of rising, setting, transiting of bodies throughout the year
- Approximate altitude and azimuth of celestial bodies  
to the nearest 5° using plastic grid
- Length of time object is above horizon
- Sun's location (and constellation) on Planisphere at the equinoxes
- Sun's rising or setting time at the equinoxes.