

# 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, 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
- Sun's RA and Dec for each of the equinoxes and solstices
- Approximate RA of Sun for any month interval
- 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 at equinoxes and solstices for East Lansing.
- 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 4 and the in-class worksheet.)
- Where to generally find planets and moon.
- Describe how the Moon moves over a few weeks of time and why.
- Describe how the planets and sun move over months of time and why.
- Know the difference between the apparent sun and mean sun.

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 midday altitude of celestial bodies  
e.g., high, low, midway up
- 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.