Midterm #1 Review Sheet

The exam will take place during the second half of class on Wednesday, March 3rd. It will be closed book and closed notes. Any equations or constants needed will be provided on the test. You may bring a calculator that is not part of a cell phone.

You will need to bring a Scantron form 882-E (teal green) and a #2 pencil. It is highly recommended that you bring extras, and a good eraser.

Topics/vocabulary to be covered:

**Chapter 1**: Scale of the universe, light years, AU, units systems

**Chapter 2**: Stars, constellations, asterisms, measuring angles on the sky, altitudes, celestial sphere model, daily motion of the sky, circumpolar constellations, view of the sky from different locations on Earth

**Chapter 3**: The zodiac, yearly apparent motion of the Sun through the constellations, rise & set positions of the Sun over a year, noon altitude of the Sun over a year, Solstices & Equinoxes, cause of the seasons, moon phase names, cause of the moon phases, rise and set times of the moon phases, types of lunar and solar eclipses

**Chapter 4**: Ancient astronomy, geocentric and heliocentric models of the solar system, Copernicus, Tycho, Kepler and Kepler’s 3 Laws, Galileo, Newton and Newton’s Laws of Motion, Newton’s Law of Gravity

**Relevant Lecture-Tutorials**: Position, Motion, Seasonal Stars, Seasons, Cause of Moon Phases, Observing Retrograde Motion, Kepler’s Third Law, Newton’s Laws and Gravity

Not covered: Magnitudes, Astronomical Influences on Earth’s Climate, Predicting Lunar Eclipses, Tides, Circular Velocity