Review Sheet 1

Basic apparent motions of stars, planets, Sun and Moon as seen from Earth, and interpretation as seen from out of the Solar System.

Coordinate systems:
  Horizon system: altitude, azimuth, cardinal points, local meridian, zenith.
  Celestial equatorial system: right ascension, declination, celestial equator,
  celestial poles, equinoxes, solstices, ecliptic

Renaissance astronomy: Know major scientific achievements of Copernicus, Tycho, Kepler, and Galileo. Terminology: configurations: inferior and superior conjunction, opposition, quadrature, greatest elongation, superior and inferior planets, retrograde motion

Classical Mechanics
  Kepler's and Newton's laws
  2-body problem: understand basic steps in deriving sol'n., understand allowable types of
    orbit, and different ways that these orbits can be expressed.
  Conservation laws
  Orbital elements (in a very qualitative way).
  Restricted 3-body problem:
        - lunar perturbations on artificial satellites
        - restricted problem in the plane
        - rotating coord. system: Lagrange points and their stability, examples
  Tides and differential gravity: know how force law is derived, important effects on Earth,
    definition of: synchronous rotation, Roche overflow (and disruption).

Solar Atmospherics: photosphere, chromosphere, corona, spots and magnetic cycle, flares and prominences.

EM Radiation theory: Different wavebands in the EM spectra, thermal radiation,
    Wien's law, Stefan-Boltzmann law, Planck law, definition of optical depth, basic
    theory of absorption and emission lines.