

# **ASTRO 1010, Fall 2015, Chapters 7 - 9**

## **Study Guide**

### Chapter 7:

- Orbital and spin properties of planets
- Properties of terrestrial and jovian planets
- Have a notion of radii, masses, and composition of terrestrial planets
- Have a notion of radii, masses, and composition of jovian planets and Sun
- Asteroids, comets, Pluto and Kuiper Belt Objects

### Chapter 8:

- Gravitational contraction of gas cloud or nebula
- Formation of disk (solar nebula) around newborn Sun
- Condensation of solids according to temperature in disk
- Accretion of solids into planetesimals
- Formation of terrestrial planets
- Formation of Jovian planets
- Formation of Earth's Moon
- Age of solar system from radioactive dating

## Chapter 9:

- Terrestrial planet interiors
- Seismic waves as probes of Earth's interior
- Metallic core by differentiation and origin of magnetic fields
- Core, mantle, crust, lithosphere
- Interior heating/cooling processes
- Shaping terrestrial surfaces by cratering, volcanism, tectonics, erosion
- Differences due to planetary size and distance from the Sun
- Cratering on surfaces of Moon, Mercury
- Mars: evidence of volcanism, tectonics, past surface water
- Venus: evidence of volcanism, tectonics, past resurfacing
- Earth: plate tectonics and associated structures