

Descriptive Astronomy (ASTR108)
Spring 2008
Exam 2 General Study Outline

Chapter 4 Gravity

- Describing Motion (speed, velocity and acceleration)
- Newton's Laws (force)
- Newton's Universal Law of Gravitation

Chapter 7 and 8 Solar System Formation

- General properties of the solar system (rotation, revolution, composition)
- Theory of the formation of the solar system (gravitational contraction, increased angular velocity, disk flattening, condensation, accretion, gas capture, solar wind)
- Condensation and solar system composition
- Planetary heating (accretion, differentiation, radioactive decay)
- Planetary cooling (convection, conduction radiation)
- Planetary surfaces (impact cratering, volcanism, tectonics, erosion)
- Existence and cause of magnetic fields)

Chapter 9 and 10 Terrestrial Planets

- Moon (rotation and revolution, temperature, density, magnetic field, thin atmosphere, Maria and cratering, internal structure, origin, tidal forces))
- Mercury (rotation and revolution, temperature, density, weak magnetic field, negligible atmosphere, volcanic activity and cratering, internal structure, scarps)
- Venus (rotation and revolution, temperature, density, negligible magnetic field, volcanic activity, surface and internal structure, atmospheric characteristics, green house effect)
- Earth (rotation and revolution, temperature, density, magnetic field, surface and internal structure, atmospheric structure, magnetosphere and aurora)
- Mars (rotation and revolution, temperature, density, magnetic field, surface and internal structure, atmosphere, polar ice caps, atmospheric dust storms)

Chapter 11 Jovian Planets

- Density, size, composition, magnetic fields
- Jupiter: Great Red Spot and Coriolis Effect
- Jupiter: Bands and Zones
- Saturn: Rings and Roche Limit
- Jupiter and Saturn Aurora