

Astronomy 101 Section 1
Unit IV Lecture Outline

14 November, 2016

Lecture	Date	Topic	Material (see outline below)
27	28 Oct	Asteroids	4.1.
28	31 Oct	Gas Giants and Ice Giants	4.2.
29	2 Nov	Rings	4.3.
30	4 Nov	The Galilean Satellites	4.4.
31	7 Nov	The Moons of Saturn and Uranus	4.5.
32	9 Nov	Beyond Neptune	4.6.1.-4.6.5.
33	11 Nov	Pluto, Triton, and Planet Nine	4.6.5, 4.7.
34	14 Nov	The Formation of the Solar System	4.8.
35	16 Nov	Review	
36	18 Nov	Mid-term Exam 3	

Outline for Mid-Term Exam 3

4. The Outer Solar System

4.1. Asteroids

1. Overview
2. Locations
3. Kirkwood Gaps
4. Impacts
5. Asteroids up close

4.2. Gas Giants and Ice Giants

1. Overview
2. Atmospheres
3. Internal structure

4.3. Rings

1. Four ring systems
2. The variety of rings
3. Basic properties
4. Shaping the rings

4.4. The Galilean Satellites

1. The small outer worlds
2. Io
3. Europa
4. Ganymede
5. Callisto
6. The Jovian System

- 4.5. The Moons of Saturn and Uranus
 - 1. The Saturnian System
 - 2. Titan
 - 3. Enceladus
 - 4. Other moons of Saturn
 - 5. The moons of Uranus
- 4.6. Beyond Neptune
 - 1. Comets
 - 2. Comets and the Earth
 - 3. The Kuiper Belt and Oort Cloud
 - 4. The Neptunian System
 - 5. Trans-Neptunian Objects
- 4.7. Pluto, Triton, and Planet Nine
 - 1. Triton
 - 2. Pluto and Charon
 - 3. New Horizons
 - 4. Planet Nine
- 4.8. Formation of the Solar System
 - 1. Three models
 - 2. The accretion model
 - 3. Observational evidence
 - 4. Composition and mass
 - 5. Jovian systems
 - 6. Conclusions