

AY 204-001

SOLAR SYSTEM ASTRONOMY

FALL 2003

Room 338:

Gallalee Hall

TR 12:30pm-1:45 am

Dr. G. Byrd Rm. 306 Gallalee Hall Phone: 348-5050 E-mail: byrd@possum.astr.ua.edu

Text: *The Planetary System*, Third edition plus handouts.

Course Description and Objectives: Discussion of orbital mechanics and of the interior structure, surface features, atmosphere, and origin of the sun, planets, and solar system. At the end of the course students will be able to carry out a set of standard calculations of orbits and of the physical surface conditions and internal properties of planets.

Quizzes and Grading: The final letter grade will be based on the average exam grade and the homework average. The exam average counts 90 percent and the homework 10 percent. The homework is due on the day of each exam. In-class exercises will also count as homework. Points will be taken off if the homework is late. There are two exams during the semester plus a non-comprehensive final over the last 1/3 of the course. Exam questions will require short calculations or written explanations from lecture, reading, or similar to homework. Prerequisite: Math 113 or Math 115 or equivalent. Makeup exams will be given for valid excuse. Grading is on a standard percent scale.

Schedule: Date, Chapter and title, Sections and pages

Aug. 21:	Chap.1: Finding Our Place in Space	Dr. Byrd out of town on this day..
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Aug. 26:	Chap. 1: continued,	
Aug. 28:	Chap. 1 continued; Sect. 8.7 Synodic Period	page 197
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Sept. 2:	Chap. 1: cont.; Quant. Kepler's Laws, Motions in Planetary Systems	Sect. 1.7 p. 24; pages 499-500
Sept. 4:	Section 2.2 Composition of Sun Section 8.8 Doppler Effect Section 2.7 Radiation Laws Sect. 12.7 Atmospheric Escape	pages 33-36 page 196 page 46 page 327
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Sept. 9:	Chap. 3 Getting to Know Our Neighbors	pages 51-74
Sept. 11	Chap. 3 Continued. Section 4.7 Radioactive Dating	pages 92-93
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Sept. 16:	Chap 9: The Earth:	pages 201-229
Sept. 18:	Chap. 9: The Earth: (Continued)	
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Sept. 23:	Chap. 7: The Moon, Sec. 6.6 Albedos and Temp.	pages 145-176 page 140

Sept. 25: Chap. 8: Moon and Mercury pages 177-199
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Sept. 30: EXAM over first 1/3 of course
Oct. 2 : Geography of Mars In-class Exercise (BE SURE TO ATTEND)
Lessons of History: Concepts of Mars

Schedule (Continued) : Date, Chapter and title, Sections and pages

Oct. 7:	Chap. 11: Mars	pages 259-236
Oct. 9:	Chap. 10 Venus	pages 231-257
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Oct. 14:	Chap. 10 Venus (continued)	
Oct. 16:	Chap. 12: Life, Planets, & Atmospheres	pages 299-330
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Oct. 21:	Chap. 12: continued	
Oct. 23:	Chap. 13: Jupiter and Saturn:	pages 331-361
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Oct. 28:	Chap. 14: In Deep Freeze (Uranus and Neptune)	pages 363-379, 385
Oct. 30 :	Section 14.7 Discovering a Planet	page 384
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Nov. 4 :	EXAM over Second 1/3 of course	
Nov. 6 :	Chap. 4: Meteorites;	pages 75-94
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Nov. 11:	Chap. 5: Asteroids	pages 95-118
Nov. 13:	Chap. 15: Worlds of Fire and Ice (Large Satellites)	pages 387-419
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Nov. 18	Section 14.6 Is Pluto a Planet? Chap. 16: Small Satellites	pages 379-383 First part of chap. pages 421-432
Nov. 21	Jupiter's Rings Chap. 16: Planetary Rings	pages 424-425 pages 433-448
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Nov. 25:	Chap. 6 Comets	pages 119-143
Nov. 27:	THANKSGIVING HOLIDAY	
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Dec. 2:	Chap. 17: Origin of Planets	pages 449-470
Dec. 4:	Chap. 18: Distant Worlds Detection of Other Planets	pages 471-501
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Dec. 10:	FINAL EXAM over last 1/3 of the course Wednesday 11:30 am - 2:00 pm	room 338