

Astronomy 118

Physics of Planetary Systems

Professor Jonathan Fortney

Winter Quarter 2012

MWF: 9:30-10:40 a.m., Earth & Marine Sciences B210

This class is designed primarily for physics, astrophysics, and earth & planetary sciences in their junior or senior year. Two years of college physics and two years of college math (including at least one year of calculus) are highly recommended as preparation.

The course will take an “astronomical” point of view of the science of planetary systems, with less of a focus on the specifics of our solar system. The course is not really an astrobiology class either, but will focus on planets as astronomical objects. Mostly we will focus on Chapters 1-4, 6-9 in our textbook (see below), and I will also occasionally give out supplementary material to read.

In addition to the midterm, final, and six homework assignments, a quarter project will be required, which is a 10-page review of a current topic in extrasolar or solar system planets.

Week	Day			Week	Day			
1	1	M	9-Jan	6	15	M	13-Feb	
	2	W	11-Jan		16	W	15-Feb	QP outline
	3	F	13-Jan		17	F	17-Feb	
2	Holiday	M	16-Jan	7	Holiday	M	20-Feb	
	4	W	18-Jan		18	W	22-Feb	HW4
3	5	F	20-Jan	19	F	24-Feb		
	6	M	23-Jan	20	M	27-Feb		
	7	W	25-Jan	21	W	29-Feb		
4	8	F	27-Jan	22	F	2-Mar	HW5	
	9	M	30-Jan	23	M	5-Mar		
5	10	W	1-Feb	9	24	W	7-Mar	
	11	F	3-Feb		25	F	9-Mar	QP due
	12	M	6-Feb		26	M	12-Mar	
5	13	W	8-Feb	10	27	W	14-Mar	HW6
	14	F	10-Feb		28	F	16-Mar	

Final Exam: Monday, March 19, 8:00–11:00 a.m.

Required Textbook: Caleb Scharf, *Extrasolar Planets and Astrobiology*, 2008.

Contact info for Professor Fortney:

Class Web: www.ucolick.org/~jfortney/118.htm

Office hours: Thursdays, 9-10:30 a.m., ISB 275, or by appointment

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Course Requirements and Grade Fraction:

1 in-class midterm, open notes/book	20%
1 final exam, open notes/book	30%
Quarter project	15%
6 homework sets	35%

Other Issues:

This class will be graded on a curve, so I cannot estimate what percentage you will need for a given grade. Do your best. I will let you know where you stand as the class progresses.

It is OK to work together on homework problems, but you must write up and turn in your own work.

Please see the “Official University Policy on Academic Integrity for Undergraduate Students” at:

http://undergraduate.ucsc.edu/acd_integrity/index.html