

# EAS 1601: How to Build a Habitable Planet

CULC 152, 12:00 - 1:30PM T-R

Textbook: Planetary Systems, Custom Edition for Georgia Tech, Pearson ISBN-13: 978-0-558-711269

I. Introduction			Readings
1	8/21/2012	Introduction	Intro.pdf
II. The Big Bang			Big Bang.pdf
2	8/23/2012	Basic Physics 1: Gravity and Radiation and Light	
3	8/28/2012	Early Theories of Earth, Solar System and Cosmos	
4	8/30/2012	Basic Physics 2: Space/Time & Relativity	
5	9/4/2012	Evidence of the Big Bang	
6	9/6/2012	The Big Bang: What does it mean?	
7	9/11/2012	EXAM 1	
III. The Formation of the Elements			Chapt 16,2,10,12 Stars.pdf Galaxies.pdf Nucleosynthesis.pdf Chart of the Nuclides.pdf
8	9/13/2012	Basic Physics 3: Matter and the Nucleus	
9	9/18/2012	Formation of H and He	
10	9/20/2012	Formation and Morphology of Stars	
11	9/25/2012	Formation of Heavy Elements in Giant Stars	
IV. Our Solar System			<a href="http://www.solarviews.com/eng/solarsys.htm">http://www.solarviews.com/eng/solarsys.htm</a> Age of the Solar System.pdf Age of the Elements.pdf Chapt 16,2
12	9/27/2012	The Sun, Inner and Outer Planets	
13	10/2/2012	Basic Physics 4: Radioactivity and Radioactive Dating	
14	10/4/2012	The Age of our Solar System	
15	10/9/2012	When Were the Elements that Make Up Our Solar System Synthesized?	
16	10/11/2012	EXAM 2 (Covers Sections III and IV Only)	
	10/16/2012	Fall Recess	
V. The Formation of the Earth			Chapt 17, 3.3
17	10/18/2012	Accretion and Differentiation	
18	10/23/2012	The Crust: Part I, Morphology	
19	10/25/2012	The Crust: Part II, Maintenance and Upkeep through Tectonics	
VI. Contending with Neighbors			Chapts 5,6, 7
20	10/30/2012	The Moon	
21	11/1/2012	Asteroids and Comets	
VII. Making Earth Habitable			Chapt 3,12
22	11/6/2012	Having Enough Water - H Escape	
23	11/8/2012	Climate: Getting the Temperature Right	
24	11/13/2012	Climate: The Goldilocks Problem; Why the Earth and not Mars or Venus?	
25	11/15/2012	EXAM 3	
26	11/20/2012	The Challenge to Habitability: Climate Variability on the Earth Over Geologic Time	
	11/22/2012	Thanksgiving Recess	
27	11/27/2012	Keeping the Right Amount of Oxygen	
VIII. The Final Steps			Chapt 10
28	11/29/2012	The Origins of Life	
29	12/4/2012	Whence Our Resources?	
30	12/6/2012	How will it All End?	
	12/11/12 11:30 AM	Final Exam	

Note: Lecture Notes will be posted on T-Square under EAS1601/Resources/Lecture Notes. Readings will be posted on T-Square Under EAS1601/Resources/Readings