

		Classes begin			
Formation of Habitable Planets	Jan 12, 2017	Course organization; Goals of Astrobiology, Life in the Universe, Timescales, Size scales			
	Jan 17, 2017	Basics of Biochemistry: metabolism, photosynthesis, energy, water,			
	Jan 19, 2017	Conditions for Life as we know it; Limits of life and their biophysical basis;			
	Jan 24, 2017	Habitable Environments in the Galaxy, introduction to habitability and the Habitable Zone			
	Jan 26, 2017	Initial conditions for planet formation: constraints from the solar system			
	Jan 31, 2017	Fragmentation, Collapse, Angular Momentum Conservation			
	Feb 2, 2017	Accretion disk structure and evolution: accretion, viscosity sources, dead zones, irradiation & flaring			
	Feb 7, 2017	Particle growth: from sub-micron to km+ sizes			
	Feb 9, 2017	Late stages of planet formation: oligarchic growth, atmosphere accretion			
	Feb 14, 2017	Moon formation; Nice model: fine-tuning the solar system; late heavy bombardment			
Habitable Planets	Feb 16, 2017	Delivery of water and volatiles to terrestrial planets			
	Feb 21, 2017	Habitable Planets - Physical principles setting the limits of life; phase diagram for water, other solvents			
	Feb 23, 2017	Basics of planetary atmospheres Bond Albedo and equilibrium temperature,			
	Feb 28, 2017	Accretion heat and radioactive decay; Greenhouse effect			
	Mar 2, 2017	Project Discussion; Planetary Atmospheres: Adiabatic lapse rate, pressure profiles			
	Mar 7, 2017	Exoplanets: Detection Techniques: RV, transit, direct imaging, microlensing, transit timing, astrometry			
	Mar 9, 2017	Exoplanet Populations: RV and Kepler census, planet frequency vs. size and host star mass, super-earth, super-jupiters. etc.			
	Mar 14, 2017	<i>Spring Break</i>			
	Mar 16, 2017	<i>Spring Break</i>			
	Mar 21, 2017	Mars: Planetary properties, geography, Mars exploration			
	Mar 23, 2017	Mars: Search for life, Viking experiments			
	Mar 28, 2017	Icy Moons: Tidal heating, Europa, Enceladus			
	Mar 30, 2017	Titan			
	Apr 4, 2017	Climate feedbacks; Earth as a planet: orbital and physical properties, atmospheric composition;			
	Exoplanets	Apr 6, 2017	Earth Evolution: atmospheric evolution, Milankovitch cycles, Venus, internal energy sources and plate tectonics		
Apr 11, 2017		Exoplanet Characterization: Transit Spectroscopy, Imaging			
Apr 13, 2017		Exoplanet Atmospheres and Interiors; mass-radius relationship, clouds, equilibrium/non-equilibrium chemistry			
Apr 18, 2017		Biosignatures I - Earth as an exoplanet			
Apr 20, 2017		Future Exoplanet Missions			
Apr 25, 2017		Astrobiology-driven planetary missions and concepts - Future Searches for Life in the Solar System; Physics of Space Travel			
Apr 27, 2017		Project Reviews			
	May 2, 2017	Project Reviews			