Astro 3, Spring 2007; Tentative schedule of topics
Announcements in class take precedence over this schedule!

Date	Class Topic	Important Dates and Times	Week	Lab	Lab if cloudy
Mon. Jan. 22	Why is the sky dark at night?		1		
Wed. Jan. 24	What is cosmology? Cosmological assumptions			(No lab this week)	
Fri. Jan. 26	Early cosmology: Where are we in the universe?				
Mon. Jan. 29	Measuring distances in astronomy		2		
Wed. Jan. 31	Modern observational cosmology; light as a tool for astronomy			(No lab this week)	
Fri. Feb. 2	The expanding universe	Drop/add ends			
Mon. Feb. 5	The Hubble Law		3		
Wed. Feb. 7	The cosmic microwave background (CMB); blackbody radiation			Lab I: Finding your way around the sky: naked eye and telescopic observations	Lab II
Fri. Feb. 9	The principle of relativity				
Mon. Feb. 12	Reference frames; spacetime coordinates		4		
Wed. Feb. 14	Spacetime diagrams			(No lab this week)	
Fri. Feb. 16	Spacetime diagrams continued; the radar method				
Mon. Feb. 19	Kinds of time		5		
Wed. Feb. 21	Spacetime interval; the metric equation			Lab II: Measuring the speed of light	
Fri. Feb. 23	How the metric equation shows the expansion of the universe				
Mon. Feb. 26	Two-observer spacetime diagrams		6		
Wed. Feb. 28	Length contraction			(No lab this week)	
Fri. Mar. 2	Does relativity violate causality?			(Sat. Mar. 3; optional lunar eclipse viewing)	
Mon. Mar. 5	What's special about special relativity, and what's more general about general relativity?		7		
Wed. Mar. 7	The curvature of spacetime			Lab III: Properties of light: photometry and spectroscopy	
Fri. Mar. 9	**Exam 1**				
Mon. Mar. 12	Spring Break—no class				
Wed. Mar. 14					
Fri. Mar. 16					

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Date	Class Topic	Important Dates and Times	Week	Lab	Lab if cloudy
Mon. Mar. 19	Ω and the fate of the universe		8		
Wed. Mar. 21	Measuring Ω and the change in the expansion rate			(No lab this week)	
Fri. Mar. 23	The origin of the elements: Big Bang nucleosynthesis				
Mon. Mar. 26	Measuring Ω and spacetime curvature from the cosmic microwave background		9		
Wed. Mar. 28	Successes and failures of the Big Bang model; cosmology summarized			Lab IV: Using a telescope for astronomical imaging	Lab V
Fri. Mar. 30		Last day to withdraw with a "W" or declare CR/NC grade option			
Mon. Apr. 2	Between the Big Bang and now: Galaxy formation, star formation		10		
Wed. Apr. 4	Planet formation			(No lab this week)	
Fri. Apr. 6	Overview of our solar system				
Mon. Apr. 9	What is life? The chemistry of life: the importance of carbon and H_2O		11		
Wed. Apr. 11	What makes a planet habitable?			Lab V: Hubble law	
Fri. Apr. 13	Life on Mars? Life on Europa?				
Mon. Apr. 16	**Exam 2**		12		
Wed. Apr. 18	Detecting planets around other stars: overview			(No lab this week)	
Fri. Apr. 20	Detecting Jupiter-mass planets				
Mon. Apr. 23	Will we ever detect Earth-mass planets?		13		
Wed. Apr. 25	Planet detection techniques compared; future prospects			Lab VI: Measuring planetary masses	
Fri. Apr. 27	Could we detect life?				
Mon. Apr. 30	Are we alone? Fermi's paradox		14		
Wed. May 2	The search for extraterrestrial intelligence (SETI)			(No lab this week)	
Fri. May 4	Get out your crystal ball: the future of cosmology and extrasolar planet research	Last day of class			
Thurs. May 10	Start of exam period; final exam date to be announced				