

## Astro 16 syllabus: Fall 2014

v.6 (25 Nov 2014)

week 1	class 1	Tue, Sep 2	angular measure on the sky, angle-distance-size relation; scale of the solar system; moon phases	Ch. 1, 2
week 2	class 2	Thu, Sep 4	parallax, inverse square law of light	Sec. 13.2
	class 3	Tue, Sep 9	circular motion, gravity, orbits	Sec. 13.1, Ch. 3
week 3	class 4	Thu, Sep 11	finish orbits and Kepler's laws; properties of light, connection to atomic physics	Ch. 5, start
	class 5	Tue, Sep 16	particles and waves, three types of spectra	Ch. 5, finish
	class 6	Thu, Sep 18	<b>David out of town: no regular class</b>	
week 4	class 7	Tue, Sep 23	atomic processes, Doppler shift	
	class 8	Thu, Sep 25	line broadening, radiation transport	
week 5	class 9	Tue, Sep 30	LTE, blackbody radiation	
	class 10	Thu, Oct 2	hydrostatic equilibrium and the nature of stars	Ch. 15 (and sec. 9.2)
week 6	class 11	Tue, Oct 7	scale height and spectral line formation	
	class 12	Thu, Oct 9	energy sources for stars, nuclear reactions	
<b>fall break</b>				
week 7	class 13	Tue, Oct 21	finish nuclear reactions, and heat transport	Ch. 14, start Ch. 6 on telescopes and detectors, for lab
	class 14	Thu, Oct 23	start stellar atmospheres and observation	Ch. 13, start
week 8	class 15	Tue, Oct 28	spectral classification and the HR diagram	Ch. 13, finish
	class 16	Thu, Oct 30	magnitude system	
week 9	class 17	Tue, Nov 4	binarity	
	class 18	Thu, Nov 6	finish binarity; star formation	Ch. 17
week 10	class 19	Tue, Nov 11	stellar evolution, stellar remnants	Ch. 18; Ch. 6 (for lab)
	class 20	Thu, Nov 13	more on stellar remnants and massive star evolution	
week 11	class 21	Tue, Nov 18	<b>second exam, in class</b>	
	class 22	Thu, Nov 20	degeneracy, white dwarf properties and structure	
week 12	class 23	Tue, Nov 25	interstellar medium: dust	Ch. 16
		Thu, Nov 27	<b>no class: Thanksgiving</b>	
week 13	class 24	Tue, Dec 2	exoplanets	Ch. 12
	class 25	Thu, Dec 4	the Milky Way and galactic astronomy	Ch. 19
week 12.5	class 26	Tue, Dec 9	more on galaxies, distance ladder, Hubble law	Ch. 20

*note: schedule, including readings, is subject to change*