

STELLAR ASTROPHYSICS

Physics 3021 -- Fall 2009

Day	Date		Chap	Homework Problems	Due	Observatory	Topic
M	Aug 17		---				Introduction
W	Aug 19		8				Light (wavelength, spectrum, speed); video
F	Aug 21		8	Problem Set 1			Blackbody Radiation & Kirchoff Laws
M	Aug 24		8			Class Night	Quantum Mechanics; Bohr Atom
W	Aug 26		8				Energy Levels; Quantum Numbers
F	Aug 28		8	Problem Sets 2 & 3	1		Boltzmann & Saha Equations
M	Aug 31		8	Problem Set 4			Line profiles; curve of growth
W	Sep 2		9	Problem Set 5	2		Telescopes (optical)
F	Sep 4		9		3, 4		Telescopes (non-optical) & Observatories
M	Sep 7		---	-----			HOLIDAY
W	Sep 9		---		5		Homework Review
F	Sep 11		---	TEST 1			TEST 1
M	Sep 14		11	Problem Set 6		Class Night	Stellar Characteristics: Parallax
W	Sep 16		11				Stellar Characteristics: Photometry
F	Sep 18		13		6		Stellar Characteristics: Spectroscopy
M	Sep 21		13	Problem Set 7			Gravity
W	Sep 23		12				Binary Stars
F	Sep 25		12	Problem Set 8	7		HR Diagram; Celestial Census
M	Sep 28		10	Problem Set 9		Class Night	Solar Atmosphere & Layers
W	Sep 30		10				Solar Activity; Sunspots, Prominences, Flares
F	Oct 2		10		8		View the Sun with Telescopes
M	Oct 5		---	-----			MID-TERM RECESS
W	Oct 7		---		9		Homework Review
F	Oct 9		---	TEST 2			TEST 2
M	Oct 12		14	Problem Set 10			Milky Way Galaxy
W	Oct 14		15				Interstellar medium
F	Oct 16		15				Protostars
M	Oct 19		16		10	Class Night	Introduction to Stellar Interiors
W	Oct 21		16				Pressure Equation of State; molecular weights
F	Oct 23		16	Problem Set 11			Nuclear physics; PP Chain
M	Oct 26		16				Don Harmer -- solar neutrino experiment
W	Oct 28		16				CNO Cycle
F	Oct 30		16				Triple alpha; abundances up to iron
M	Nov 2		16		11	Class Night	Main Sequence & Star Clusters
W	Nov 4		16				Red Giants
F	Nov 6		16				Post Main Sequence, Planetary Nebula
M	Nov 9		17				White Dwarfs
W	Nov 11		---	TEST 3			TEST 3
F	Nov 13		17				Supernova Explosions
M	Nov 16		17				Supernova Remnants
W	Nov 18		18				r and s process
F	Nov 20		---				Ignacio Taboada -- Neutrinos and IceCube
M	Nov 23		---				Steven Hawking video
W	Nov 25		---	-----			HOLIDAY
F	Nov 27		18	-----			HOLIDAY
M	Nov 30		18			Class Night	Superconductivity Demo
W	Dec 2		18				Neutron Stars and Pulsars
F	Dec 4		---				Black Holes and General Relativity