

Physics 172 Schedule Spring 2024

version 4

Week	Lecture	Day	Date	Chapter	Topic	[Homework due at 9:00 AM]
1	1	W	Jan. 24	Ch. 1	Introduction, Overview, Powers of Ten	
	2	F	Jan. 26	Ch. 1, Ch. 2.2	Units, Distance, Scales, Parallax	
2	3	M	Jan. 29	Ch. 2.4, 3.1-3.2	Galileo, Kepler, Newton	
	4	W	Jan. 31	Ch. 3.3-3.4	Universal Gravitation, orbits	
3	5	F	Feb. 2	Ch 3.5, 4.6	Forms of energy, escape velocity, Tides	Homework 1
	6	M	Feb. 5	Ch. 5.1 - 5.3	Light, Electromagnetic Spectrum, radiation	
	7	W	Feb. 7	Ch. 5.4 - 5.5	Heat, Stefan-Boltzman law, photons	
4	8	F	Feb. 9	Ch. 5.6, 6.1	Spectroscopy, Doppler effect	Homework 2
	9	M	Feb. 12	Ch. 6.2-6.3	Optical telescopes, resolving power	
	10	W	Feb. 14	Ch. 6.4-6.6	Radio, X-ray, Gamma-ray telescopes	
5	11	F	Feb. 16	Ch. 15.1,15.3, 16	The Sun, Thermonuclear fusion	Homework 3
		M	Feb. 19		Review and catch-up	
	12	W	Feb. 21		TEST 1 Chapters 1-6	
6	13	F	Feb. 23	Ch. 17.1-17.3	Stellar brightness, magnitude, spectra	
	14	M	Feb. 26	Ch. 17.4	Stellar radii, rotation	
	15	W	Feb. 28	Ch. 18.1-18.3	Stellar masses, diameters	
7	16	F	Mar. 1	Ch. 18.4	H-R diagram	Homework 4
	17	M	Mar. 4	Ch. 19	Stellar distances, Cepheid variables	
	18	W	Mar. 6	Ch. 20	Stellar formation, stellar nurseries	
8	19	F	Mar. 8	Ch. 21	Stellar birth, exoplanets	Homework 5
			Mar. 11-15		Spring Break - *no classes*	
	20	M	Mar. 18	Ch. 22.1-22.4	Stellar evolution: low mass stars	
9	21	W	Mar. 20	Ch. 22.5	Stellar evolution: high mass stars	
	22	F	Mar. 22	Ch. 23.1	Stellar death: white dwarfs	Homework 6
	23	M	Mar. 25	Ch. 23.2-23.6	Stellar death: supernovae, neutron stars	
10	24	W	Mar. 27	Ch. 24.1-24.4	Curved space-time, General relativity	
	25	F	Mar. 29	Ch. 24.5-24.7	Black holes, gravitational waves	Homework 7
		M	Apr. 1		TEST II Chapters 15-23	
11	26	W	Apr. 3	Readings on BB	One galaxy or many? The Shapley-Curtis debate	
	27	F	Apr. 5		Gravitational Lensing; Olber's paradox	
	28	M	Apr. 8	"	*no class* - time devoted to readings (& eclipse)	
12	29	W	Apr. 10	Ch. 25	The Milky Way galaxy	
	30	F	Apr. 12	Ch. 26	Types of galaxies, expanding universe, dark matter	
	31	M	Apr. 15	Ch. 27	Quasars, active galaxies	Reaction Paper 1
13	32	W	Apr. 17	Ch. 28	Cosmological principle, large scale structure	
	33	F	Apr. 19	Ch. 29.4	Cosmic Microwave Background	Homework 8
	34	M	Apr. 22	Ch 29.1-29.3	Origin of the elements, the first 3 minutes	
14	35	W	Apr. 24	Ch. 29.5	Dark energy and the future of the universe	
	36	F	Apr. 26	Readings on BB	*no class* - time devoted to paper 2	
	37	M	Apr. 29	Ch. 29.6	The inflationary hypothesis	
15	38	W	May 1	Readings on BB	The beginning of the universe: philosophy/religion	
		F	May 3	"	Limits of the definition of science, Multiverse	
		M	May 6			Reaction Paper 2
		F	May 10		Final Exam 9:00 am - 12:00 noon	