

Physics 1314

The Physical Perspective

Spring 2000 Syllabus

Professor Thomas E. Coan, Room 4B, FS (x8-2497)

Email: coan@mail.physics.smu.edu

WWW page: <http://www.physics.smu.edu/~coan>

Text: Physics, Cutnell and Johnson, ISBN 0-471-15519-5 **OR** 0-471-19113-2

Office hours: Monday, 2:00 – 4:00 PM. Also by appointment.

DATE	LECTURE TOPIC	READING
Jan 18	No Lab	
Jan 19	Introduction and Mechanics Review	18.1-18.5, pp. 522-527.
Jan 24	Electrical Charge and Force	18.1-18.5, pp. 527-531.
Jan 25	Measurement and Measurement Error (L)	
Jan 26	The Electric Field	18.6-18.8, pp. 531-541.
Jan 31	Electrical Energy and Potential	19.1-19.3, pp. 558-568.
Feb 1	Electrical Measurements (L)	
Feb 2	Electricity	19.4, 20.1-20.4, pp. 586-595.
Feb 7	Magnetic Forces and Fields	21.1-21.3, pp. 628-638.
Feb 8	Magnetic Forces and Fields	21.5-21.6, pp. 639-645.
Feb 9	Magnetic Forces and Fields	21.5-21.7, pp. 645-653.
Feb 14	Review for Test 1	
Feb 15	Test 1	Covered sections of chaps. 18, 19, 21.
Feb 16	First Look at Electromagnetic Induction	22.1-22.4, pp. 670-679.
Feb 21	Test 1 Postmortem	
Feb 22	Speed of Light (L)	
Feb 23	Last Look at Electromagnetic Induction	22.5, 22.7, pp. 679-686, 688-692.
Feb 28	Light Reflection and Mirrors	25.1-25.4, pp. 760-766.
Feb 29	Electromagnetic Induction (L)	
Mar 1	Light Reflection and Mirrors	25.5-25.6, pp. 767-777.
Mar 6	Refraction of Light	26.1-26.3, pp. 782-793.
Mar 7	Plane Mirror Reflection (L)	
Mar 8	Special Topics	
Mar 13	Spring Break	
Mar 14	Spring Break	
Mar 15	Spring Break	

DATE	LECTURE TOPIC	READING
Mar 20	Pre-Test Review	
Mar 21	Test 2	Covered sections of chaps. 22, 25, 26.
Mar 22	The Wave Nature of Light	24.1-24.5, pp. 733-747.
Mar 27	Test 2 Postmortem	
Mar 28	Lenses (L)	
Mar 29	Diffraction and Polarization	24.6, 27.1-27.2, pp. 747-754, 830-837.
Apr 3	More Diffraction and Polarization	27.3, 27.5-27.7, pp. 837-841, 843-855.
Apr 4	Diffraction (L)	
Apr 5	Quantum Nature of Light	29.1-29.3, pp. 889-897.
Apr 10	Quantum Nature of Light	29.5-29.6, pp. 899-905.
Apr 11	Hydrogen Spectra (L)	
Apr 12	Atomic Ideas	30.1-30.3, pp.911- 921.
Apr 24	Review for Test 3	
Apr 25	Test 3	Covered sections of chaps. 24, 27, 29, 30.
Apr 26	Radioactivity and Age Dating	31.4, 31.6-31.7, pp.954-960, 960-965.
May 1	Test 3 Postmortem	
May 2	Course Review	

FINAL EXAMINATION: Monday, 8 May '00, 11:30 AM – 2:30 PM.