

Physics 7B Syllabus, Spring 2017

Lecture 3, J. Wurtele

<u>Week</u>	<u>Lectures</u>	<u>Topics</u>	<u>Reading</u>	<u>Labs</u>
1	Jan. 18, 20	Intro to Thermal Physics, Temperature	17	---
2	Jan. 23, 25, 27	Gases & Kinetic theory	18-19	---
3	Jan. 30, Feb. 1, 3	Heat, Work, First law, Entropy	19-20	---
4	Feb. 6, 8, 10	Engines, 2 nd law; Electric Charge	20- 21	---
5	Feb. 13, 15, 17	Electric force, Electric field, Electric dipoles	21	Heat engine
6	Feb. 22, 24	Electric flux, Gauss's law	22	---
7	Feb. 27, Mar. 1, 3	Electric Potential, Capacitors	23-24	---
8	Mar. 6, 8, 10	Capacitors, Dielectrics, Ohm's Law	24-25	Equipot. lines & E. field
9	Mar. 13, 15, 17	Resistivity, AC power	25-26	---
10	Mar. 20, 22, 24	DC circuits, Magnetic force	26-27	DC circuits
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11	Apr. 3, 5, 7	Magnetic forces, Magnetic torques, Currents, Ampere's Law	27-28	---
12	Apr. 10, 12, 14	Biot-Savart Law, Magnetic materials, Induced EMF	28-29	---
13	Apr. 17, 19, 21	EMF and Faraday's Law	29	e/M lab
14	Apr. 24, 26, 28	Inductance, Inductors, DC circuits w/ inductors, and Maxwell Equations	30-31	O-scope & time dep.
15	May 1, 3, 5	<i>Reading/Review/Recitation Week</i>	---	---
	May 9	<i>Final examination</i>	---	---

Midterm I: February 22, 7-9pm

Midterm II: April 3, 7-9pm

Final Exam: Tuesday May 9, 8:00am-11:00am

Sections covered in D. C. Giancoli, *Physics for Scientists and Engineers*, Volume 2 (custom edition for the University of California, Berkeley), 4th edition:

17.1 – 17.9
18.1 – 18.7
19.1 – 19.10
20.1 – 20.9
21.1 – 21.11
22.1 – 22.4
23.1 – 23.8
24.1 – 24.6
25.1 – 25.9
26.1 – 26.7
27.1 – 27.9
28.1 – 28.10
29.1 – 29.7
30.1 – 30.5
31.1 – 31.3