

# Physics 7B Syllabus, Spring 2018

## Lecture 3, TR 2-3:30pm (A. Zettl)

<u>Week</u>	<u>Lectures</u>	<u>Topics</u>	<u>Reading</u>	<u>Labs</u>
1	Jan. 16, 18	Thermal expansion, ideal gas law, kinetic theory	17.4, 17.7-9, 18.1-2	<i>No Lab</i>
2	Jan. 23, 25	Phase changes, heat, internal energy, specific heat, calorimetry, latent heat, work, first law, equipartition	18.3-4(evaporation only), 19.1-9	<i>No Lab- Quiz # 1 in DS</i>
3	Jan. 30, Feb. 1	Heat conduction, Heat Engines, Entropy, Second law	19.10(conduction only), 20.1-3, 20.5-6	<i>No Lab</i>
4	Feb. 6, 8	Electric charge, Force, Field	21.1-10	Heat engine
5	Feb. 13, 15	Electric dipole, Flux, Gauss's law	21.11, 22.1-2	<i>No Lab- Quiz # 2 in DS</i>
6	Feb. 20, 22	Applications of Gauss's law	22.3	<i>Midterm 1</i>
7	Feb. 27, Mar. 1	Electric Potential	23.2-8	<i>No Lab- Quiz # 3 in DS</i>
8	Mar. 6, 8	Capacitors	24.1-6	Equipot. lines & E. field
9	Mar. 13, 15	Current, Resistors, DC circuits	25.1-5, 25.8, 26.1-5	<i>No Lab- Quiz # 4 in DS</i>
10	Mar. 20, 22	Magnetic force, Magnetic dipole, Hall effect	27.1-8	DC circuits
--	<i>Mar. 26-30</i>	<i>Spring Break</i>	---	---
11	Apr. 3, 5	Ampère's law and applications	28.1-5	<i>Midterm 2</i>
12	Apr. 10, 12	Biot-Savart law and applications	28.6-7	<i>No Lab- Quiz # 5 in DS</i>
13	Apr. 17, 19	Electromagnetic induction	29.1-4	e/M
14	Apr. 24, 26	Inductance, LR and LC circuits	30.1-5, 25.7, 29.6	O-scope & time dep.
15	<i>Apr. 30 - May 4</i>	<i>Reading/Review/Recitation Week</i>	<i>No new material</i>	---
16	May 7	<i>Final examination</i>	---	---

Midterm I: Tuesday, February 20, 2018, 10 Evans & 100 GPBB, 7:00 - 9:00 PM

Midterm II: Tuesday, April, 3, 2018, 10 Evans & 100 GPBB, 7:00 - 9:00 PM

Final Exam: Monday, May 7, 2018, 11:30 - 2:30 PM, Location TBD

**Please check on bCourses for any updates or complements of information.**