Physics 7B Syllabus, Spring 2020

Lecture 1, MWF 1-2pm (C. Bordel)

Week	Lectures	Topics	Reading	Labs
1	Jan. ~~20~~, 22, 24	Thermal expansion, ideal gas law, kinetic theory	17.4, 17.7-9,18.1-2	*No Lab*
2	Jan. 27, 29, 31	Phase changes, heat, internal energy, specific heat, calorimetry, latent heat, work, first law, equipartition	18.3-4(evaporation only), 19.1-9	*No Lab*
3	Feb. 3, 5, 7	Heat conduction, Heat Engines, Entropy, Second law	19.10(conduction only), 20.1-3, 20.5-6	*No Lab*
4	Feb. 10, 12, 14	Electric charge, Force, Field	21.1-10	Heat engine
5	Feb. ~~17~~, 19, 21	Electric dipole, Flux, Gauss's law	21.11, 22.1-2	*No Lab*
6[I]	Feb. 24, 26, 28	Applications of Gauss's law	22.3	*Midterm 1*
7	Mar. 2, 4, 6	Electric Potential	23.2-8	*No Lab*
8	Mar. 9, 11, 13	Capacitors	24.1-6	Equipot. lines & E. field
9	Mar. 16, 18, 20	Current, Resistors, DC circuits	25.1-5, 25.8, 26.1-5	*No Lab*
---	*Mar. 23-27*	*Spring break*	---	---
10	Mar. 30, Apr. 1, 3	Magnetic force, Magnetic dipole, Hall effect	27.1-8	DC circuits
11[II]	Apr. 6, 8, 10	Ampère's law and applications	28.1-5	*Midterm 2*
12	Apr. 13, 15, 17	Biot-Savart law and applications	28.6-7	*No Lab*
13	Apr. 20, 22, 24	Electromagnetic induction	29.1-4	e/M
14	Apr. 27, 29, May 1	Inductance, LR and LC circuits	30.1-5, 25.7, 29.6	O-scope & time dep.
---	*May 4-8*	*Reading/Review/Recitation Week*	*No new material*	---

[I]Midterm I: Monday, February 24th from 7-9 PM (2 hrs), in 1, 3 & 4 LeConte

[II]Midterm II: Monday, April 6th from 7-9 PM (2 hrs), in 1, 3 & 4 LeConte

Final Exam: Tuesday, May 12th from 8-11 AM (3 hrs), room TBA

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

1/14/20