

## Physics 7B Syllabus, Fall 2016

### Lecture 1, Birgeneau/Frano, 1 LeConte Hall (MWF, 11:00am-12:00pm)

<u>Week</u>	<u>Dates</u>	<u>Topics</u>	<u>Reading</u>	<u>Labs/Exams</u>
1	8/24, 8/26	Intro, thermal expansion, ideal gas law	17	
2	8/29, 8/31, 9/2	Kinetic theory, phase diagrams, First law	18 - 19	
3*	9/7, 9/9	First law, Specific heat, adiabatic processes	19	
4	9/12, 9/14, 9/16	Second Law	20	Heat engine
5	9/19, 9/21, 9/23	Electric charge, force, field, dipole	21	
6	9/26, 9/28, 9/30	Electric flux, Gauss's law	22	<b>Midterm 1</b>
7	10/3, 10/5, 10/7	Electric Potential	23	
8	10/10, 10/12, 10/14	Capacitors	24	Equipot. lines & E. field
9	10/17, 10/19, 10/21	Current, Ohm's law, resistors	25 – 26	
10	10/24, 10/26, 10/28	DC circuit, Magnetic force	26 - 27	DC circuits
11	10/31, 11/2, 11/4	Magnetic dipole, torque, Hall effect	27	<b>Midterm 2</b>
12*	11/7, 11/9	Ampère's law	28	
13	11/14, 11/16, 11/18	Biot Savart Law, Electromagnetic induction	28 - 29	e/M
14*	11/21	Inductance, Faraday's law	29	
15	11/28, 11/30, 12/2	LR and LC circuits; Maxwell's equations	30	O-scope & time dep. circuits
16	12/5 – 12/9	<i>Reading/Review/Recitation Week</i>	<i>No new material</i>	
17	12/12	<i>Final examination</i>	---	---

\*Holidays – no class:

September 5 – Labor Day

November 11 – Veterans Day

November 23 – Non-Instructional Day

November 24-25 – Thanksgiving Break

## **Sections covered per chapter:**

Ch 17.1 – 17.9

Ch 18.1 – 18.3, 18.5-18.6

Ch 19.1 – 19.10

Ch 20.1 – 20.6

Ch 21.1 – 21.11

Ch 22.1 – 22.3

Ch 23.1 – 23.8

Ch 24.1 – 24.6

Ch 25.1 – 25.5, 25.7 – 25.9

Ch 26.1 – 26.5

Ch 27.1 – 27.5, 27.8

Ch 28.1 – 28.7

Ch 29.1 – 29.4, 29.6 – 29.7

Ch 30.1 – 30.5

## **Exam Schedule**

Midterm 1: Review Sessions: Saturday, September 24, 2:00 – 4:00 PM, 1 Pimentel

Sunday, September 25, 2:00 – 4:00 PM, 1 Pimentel

Exam: Monday, September 26, 7:00 – 9:00 PM, Room TBD

Midterm 2: Review Sessions: Saturday, October 29, 2:00 – 4:00 PM, 1 Pimentel

Sunday, October 30, 2:00 – 4:00 PM, 1 Pimentel

Exam: Monday, October 31, 7:00 – 9:00 PM, Room TBD

Final Exam: Monday, December 12, 11:30 AM – 2:30 PM, Room TBD

**Please check on bCourses for any updates or further information.**