

Physics for Citizens - Physics 100 Schedule & Syllabus for Fall 2011

See below for schedule, text, grading, expected student outcomes, and instructors information

Lecture: M+W+F 1330-1420 in Physical Sciences Lecture Room 217, attendance required

Discussion Sections: M+F 1430-1520 in Watanabe Hall 212, voluntary

Laboratory: M or F 1530-1730, as registered, in 415 Watanabe Hall

Homework due on Friday of week assigned

<i>Day</i>	<i>Week</i>	<i>Topic</i>	<i>Text section</i>	<i>Concept. Exer.</i>	
Problems					
M	22 Aug	Overview, fundamentals	Ch 1		
M	29 Aug	Atoms, How things move	Ch 2 & start Ch 3	1-27; 2-32, 38	
M	29 Aug	<i>First Discussion (2:30) and Labs (3:30)</i>			
M	05 Sep	<i>Labor Day Holiday</i>			
W	07 Sep	Why things move as they do	Ch 3 & 4	3-1, 18, 32; 4-2	3-10,
14; 4-12					
M	12 Sep	Newton & why objects move	Ch 4 & 5	4-16, 34; 5-8, 18	4-16;
5-2					
M	19 Sep	Work, energy, power	Ch 6	6-2, 38, 46	6-6, 18
M	26 Sep	Thermodynamics	Ch 7	7-6, 16, 34	7-4
M	03 Oct	EM & Climate change	Ch 8 & 9	8-3, 7, 22, 26;	8-2,
9-2				9-12, 33, 37, 48	
M	10 Oct	Catch up & Review	Chs 1-9		
MIDTERM 1 -- Wed 12 Oct **calculator + 1 page of notes allowed**					
M	17 Oct	Einstein & relativity	Ch 10 & 11	10-19, 22, 42; 11-12, 31	10-8,
10					
M	24 Oct	Quantum phenomena	Ch 12 & 13	12-6, 26; 13-14, 22	12-2;
13-1					
M	31 Oct	Nuclear physics	Ch 14	14-12, 20, 32, 36, 37	14-4, 8
M	07 Nov	Fusion and fission	Ch 15	15-10, 12, 20, 26, 28	15-2
M	14 Nov	Catch up & Review	Chs 10-15		
MIDTERM 2 -- Wed 16 Nov ** calculator + 1 page of notes allowed**					
M	21 Nov	The energy challenge	Ch 16	16-20, 34, 36, 40	16-7,
8, 9					
M	28 Nov	Quantum fields	Ch 17	17-10, 14	17-4
M	05 Dec	Catch up			
W	07 Dec	last class, review	Epilogue		

FINAL EXAM -- Friday 16 December 1415-1615 ** calculator + 1 page of notes allowed**

Text: *Physics Concepts and Connections, 5th ed.* by Art Hobson, Addison-Wesley 2010

Rental: text available at <http://hawaii.bookrenterstore.com>

Electronic: version at <http://www.coursesmart.com/0321662555/?a=1773944>

Library: 2 copies on reserve in Sinclair Library Wong AV Center, ask for Call Number: PC #524

Grades: 10% homework + 20% each midterm + 50% final exam

Physics 100 Student Learning Outcomes

Students are expected to understand the important physics concepts, the context in which they were developed, and their connections to society. This includes

- 1) understanding of the scientific process
- 2) ability to apply physics concepts
- 3) ability to use and understand quantitative data

The ultimate goal is for students to be able to think critically about issues involving physics as citizens in a technological society.

Teachers:

Prof. John Learned

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Office hours: M and F after class, or by appointment

Web site: <http://www.phys.hawaii.edu/~jgl/physics100.html>

TA Joshua Murillo, graduate student in physics

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Office hours: W @11-12 AM, during recitation sections, or by appointment

Last edited: jgl 26 August 2011