

PHYSICS 1250**SUMMER 2012**

Lecturer Dr Bolland, Smith Lab 1106D, 292-8065, bolland@mps.ohio-state.edu

Office hours (hours when I am guaranteed to be in) will be announced but you are welcome to come to see me at any other time.

Recitation and Lab Instructors

Christopher Plumberg, plumberg.1@osu.edu; James Davis, davisj@mps.ohio-state.edu

Recitation is for testing and tutoring, lab is for experiments and group work

Course Manager Dr Ziegler, Smith Lab 1036, 292-2067, ziegler@mps.ohio-state.edu

Text (Required) Halliday, Resnick and Walker, *Fundamentals of Physics*, 9th ed. (Wiley)

ISBN 978-0-4705-9930-3 is binder-ready version with WebAssign access.

Lab Manual (Required) *Physics 131 Laboratory Activities & Worksheets* 4th Edition

(ISBN: 978-0-7380-3708-0)

Laboratory Laboratory sections begin on Tuesday 19 June. Bring your lab manual and a calculator. No labs may be dropped. The lab sessions include problem solving and lab activities.

Web Site Use the URL <http://carmen.osu.edu/> for announcements, homework solutions, and other useful information. By the way, the World Wide Web was invented by a physicist (Tim Berners-Lee of CERN) for the purpose of communicating physics information. You should also monitor your email regularly.

Homework Homework and prelabs are through WebAssign (<https://www.webassign.net/osu/student.html>)

Quizzes There are ten; the lowest two are dropped. No notes are allowed. You may need a calculator.

Equation Sheets will be provided for the midterms and final but not for quizzes. The equation sheets will be posted ahead of time on Carmen, but you will be given them with the exams.

Grade Weights Quizzes 1; homework 1; each midterm 1, the laboratory 1 ; the final examination 2.

THERE ARE NO MAKEUP LABS, MIDTERMS OR QUIZZES. For an unavoidably missed lab, quiz, midterm or final, see Dr. Ziegler.

Final Examination The final examination will be held in the lecture room on Wednesday, 8 August, from 2:00 to 3:18 PM. MAKE NO COMMITMENT THAT WILL CONFLICT WITH THIS.

		<i>lecture 1; lab</i>	<i>lecture 2</i>	<i>rec</i>	<i>reading</i>
6/18/12	M	intro; units	acceleration	intro	2: 1-6
6/19/12	T	1-D kinematics			
6/20/12	W	constant acceleration	vectors	Q	2: 7-9 3: 1-7
6/21/12	R	vectors			
6/22/12	F	acceleration examples	projectile motion		4: 1-6
6/25/12	M	force	FBD	Q	5: 1-5
6/26/12	T	2-D kinematics Newton's 2nd law			
6/27/12	W	equations	coupled motion	Q	5: 1-9
6/28/12	R	dynamic forces			
6/29/12	F	friction	friction		6: 1-3

7/2/12	M	circular motion	circular motion	Q	4: 7 6: 5
7/3/12	T	friction			
7/4/12	W	HOLIDAY			
7/5/12	R	--- no lab ---			
		work; conservation of			
7/6/12	F	energy	potential energy		7
7/9/12	M	energy	energy	MT	8
7/10/12	T	conservation of energy			
7/11/12	W	momentum	momentum	Q	9: 1-7
		conservation of			
7/12/12	R	momentum			
		momentum: elastic			
7/13/12	F	collisions	rotation: constant acceleration		9: 8-11 10: 1-5
		rotation: moment of			
7/16/12	M	inertia	rotation: torque	Q	10: 6-10
7/17/12	T	energy & momentum			
		rotation: angular			
7/18/12	W	rotation: rolling motion	momentum	Q	11: 1-4, 6-11
7/19/12	R	rotational dynamics			
		simple harmonic			
7/20/12	F	oscillators	energy; pendulum		15: 1-6
		damping & forced			
7/23/12	M	oscillators	pressure	MT	15: 8-9 14: 1-3
7/24/12	T	vibrations			
7/25/12	W	Bernouli's equation	thermo	Q	14: 10 18
7/26/12	R	heat capacity			
7/27/12	F	thermo	thermo		19
7/30/12	M	thermo	thermo	Q	20
7/31/12	T	heat engine			
8/1/12	W	relativity	relativity	Q	37: 1-9
8/2/12	R	relativity			
8/3/12	F	relativity	relativity		37: 11-12
				FINAL	