

PHS101-4T/X7 Physical Science

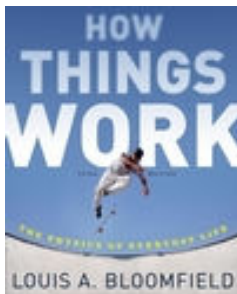
Summer Term 2006

Class meets: Sunday 1:00pm-6:30pm; CH 461

Instructor and Office Hours:

Dr. Renato Camata, camata@uab.edu
CH 306; (205) 934-8143

Monday 12:00pm-1:00pm (CH306)
(Other times by appointment)



Textbook: “How Things Work – The Physics of Everyday Life,”
Louis A. Bloomfield, Wiley, 3rd Edition,
<http://www.wiley.com//college/sc/bloomfield/index2.html>

Course Description: This course provides non-science major students with a view of physics and science to help establish a connection between science and everyday life experiences through integrated laboratory, discussion, and lecture.

Course Objectives: Through a learning environment motivated by everyday life experiences, this course trains non-science majors in how to utilize physical principles to understand the world around them. The objectives of this course are as follows: (i) provide students with objective knowledge of established physical laws and principles that govern natural phenomena; (ii) enable students to apply this knowledge in problem-solving, hands-on laboratory experiences that foster the development of their analytical and quantitative skills; (iii) guide students in the use of computer resources for analysis of experimental data; (iv) train students in effective written communication skills in the physical sciences; (v) expose students to the high ethical standards in collaborative work and in the preparation of written reports; and (vi) foster a collaborative learning environment with significant oral participation and information exchange.

Prerequisite: Completion of Core Curriculum mathematics requirement.

Last Day to Withdraw with “W”: July 11

Web Page: <http://www.phy.uab.edu/~rcamata/PHS101-4T.htm>

(Syllabus, class materials, and grades will be posted on the class web page)

Course Grade:

30% - In class quizzes on material (best 3 out of 5)

20% - Homework exercises

20% - Lab activities:

Breakdown of Lab activities:

10% from data sheets of experiments (best $n-2$ out of n)

10% from Lab Reports assigned

30% - Final Exam with open book/notebooks

Grading Scale:

Letter grades will be assigned according to the following table:
(All calculated grades will be rounded up to the nearest 0.1%.)

89.0% to 100% inclusive*	A
79.0% to 88.9% inclusive	B
65.0% to 78.9% inclusive	C
50.0% to 64.9% inclusive	D
0.0% to 49.9% inclusive	F

***Turning in all assigned work is a necessary condition for an “A” grade**

Homework Policy:

Group work and discussions prior to turning in homework are appropriate.

Late homework:

- ½ credit while solutions have not been discussed in class
- 0 credit after solutions have been discussed in class

Missed Quiz Policy

There will be no make-up quizzes.

Missed Laboratory Activity Policy

There will be no make-up laboratory activity.

Work for extra credit

No additional work will be assigned for extra credit.

Special accommodations:

Please contact Dr. Camata for an appointment to discuss special accommodations.

Course outline

Date	Topic	Chapter	“How things work”
06/04	Laws of Motion	1	Skating & Falling Balls
06/11	Laws of Motion	2	
06/18	Review & Quiz 1 <i>(1st half)</i>	1 & 2	
	Mechanical Objects <i>(2nd half)</i>	3	Wheels & Spring Scales
06/25	Mechanical Objects	3	
07/02	Mechanical Objects	4	
07/09	Review & Quiz 2 <i>(1st half)</i>	3 & 4	
	Energy <i>(2nd half)</i>	7 & 8	Energy & Roller Coasters
07/16	Review & Quiz 3 <i>(1st half)</i>	7 & 8	
	Oscillations <i>(2nd half)</i>	9	Waves & Clocks
07/23	Review & Quiz 4 <i>(1st half)</i>	9	
	Fluids <i>(2nd half)</i>	5	Fluids & The Structure of Matter
07/30	Review & Quiz 5 <i>(1st half)</i>	5	
	Fluids <i>(2nd half)</i>	5	

Final Comprehensive Exam: Sunday, August 6, 2:00pm – 4:30am