

General Physics I

PHYSICS 101.001

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Office Hours

MW 01:30 - 03:30 PM Office
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Summer II, 2009
Class Meets: 10:15 AM – 12:10 PM M-R
Science 344

- Purpose** This is a survey course which will familiarize the student with concepts of waves, sound, light, and mechanics. The major aim will be to give each student an appreciation and understanding of the physical universe. A conceptual rather than a mathematical point of view is emphasized.
- Materials** The text is [Conceptual Physics](#), tenth edition by Paul G. Hewitt (ISBN 0-8053-9190-8). The readings indicated in the Course Outline correspond to chapters from this text and should be read prior to discussion of the material in class. PHY 101L, the Physics Laboratory is a corequisite and a new edition of the lab manual is available in the bookstore. You will also need a clicker (personal response system device), which we use in both the lecture and lab. The clickers are available in the BPSB bookstore only.
- EMAIL** The course is fully developed in [myCourses](#). I will use the email system here since it is a closed email facility. All course business should be directed through myCourses.
- Exams** There will be four major exams, each covering a limited amount of lecture and text material. The dates of these exams are listed in the course outline on the next page. Each student must provide a SCANTRON form number 882-ES in order to take each exam. The last exam will **not** be comprehensive. No make-up exams will be given except by EXCUSED absence. The last exam will contain special sections devoted to questions pertaining to the lab. See the lab syllabus for details.
- Homework** Students may improve exam score in two ways. Review questions will be assigned for each section of the course. Exam scores can be improved up to 10% through these assignments. Secondly, attendance will be taken occasionally, which can earn a total of five additional percentage points per exam.
- Participation** You must bring your clicker to class every day. Attendance will be taken using the clicker on most days during the first 60 seconds of class and throughout the class time. To make sure that you are going to arrive to class on time you can set your watch here: <http://www.time.gov/>. During class, we will engage in discussions and occasional activities using clicker technology (Turning Point XR). Participation in these activities will form part of your final grade. You cannot earn 'class participation' points if you don't have a clicker. Do not let anyone else use your clicker. If you are observed using two clickers you will receive no credit for the 'In-Class Participation Grade' portion of your final grade. These devices are used to allow you to show your participation in the class. Therefore if you leave class after answering a clicker question it will result in a zero for that participation grade. The lowest 2 clicker grades will be dropped. If you are absent, late for class, or forget your clicker then you will get

a zero for the participation grade for that day – but those days can be part of the clicker grades that are dropped

Policies

For the benefit of your fellow students and your instructor, you are expected to practice common courtesy with regard to all course interactions. For example:

- Be considerate toward your classmates and instructor and arrive to class on time.
- Do not leave class early and do not rustle papers in preparation to leave before class is dismissed without speaking with your instructor first.
- Avoid classroom distractions. Be attentive in class: stay awake, do not read newspapers, etc.
- If you are late to class or must leave early please inform your instructor in advance (enter or leave quietly, don't walk across the front of the classroom (use the side aisles) and don't walk in front of the projector).

Cell phones, pagers and other communication devices must be turned off during class. These can be classroom distractions. Using one of these devices during class will result in a zero for the corresponding participation grade.

Each major exam will be graded on a 100-point scale. No grade curving is done on any grade in this course. The lecture and lab grades will be combined and the **same grade** will be recorded for both lecture and lab. All exams (including the final) are weighted equally, and the lecture portion of the course accounts for 75% of the total grade. Fifty percent of the lab grade comes from the extra questions contained in the last exam.

Grading

$$\begin{aligned} \text{Course Average} &= 0.65 \times (\text{Exam Average}) \\ &+ 0.10 \times (\text{In-Class Participation Grade and Homework}) \\ &+ 0.25 \times (\text{Lab Average}) \end{aligned}$$

A 90 – 100 B 80 - 89 C 70 – 79 D 60 – 69 F < 60

This syllabus and other course material can be made available in other formats.

PHYSICS 101.04

Course Outline

Spring 1998

	Chapter
Vibrations and Waves	18
Sound	19
Musical Sounds	20

EXAM I - 12 February

Properties of Light	25
Light Emission	29
Color	26
Reflection and Refraction	27
Light Quanta	30
Light Waves	28

EXAM II - 10 March

Linear Motion	2
Nonlinear Motion	3
Newton's Laws of Motion	4
Momentum	5

EXAM III - 14 April

Energy	6
Rotational Motion	7
Gravity	8
Satellite Motion	9

Final - Tues., 12 May 10:30 - 12:30

	M	T	W	Th	F
Jan.	19	20	21	22 Intro.	23
	26	27 Ch 18	28	29 Ch 18	30
Feb.	2	3 Ch 19	4	5 Ch 19	6
	9	10 Ch 20	11	12 Exam 1	13
	16	17 Ch 25	18	19 Ch 29	20
	23	24 Ch 26	25	26 Ch 27	27
Mar.	2	3 Ch 30	4	5 Ch 28	6
	9	10 Exam 2	11	12 Ch 2	13
	16	17 Spring	18	19 Break	20
	23	24 Ch 3	25	26 Ch 3	27
Apr.	30	31 Ch 4	1	2 Ch 4	3
	6	7 Ch 5	8	9 Ch 5	10 Good Friday
	13	14 Exam 3	15	16 Ch 6	17
	20	21 Ch 7	22	23 Ch 7	24
	27	28 Ch 8	29	30 Ch 8	1
May	4	5 Ch 9	6	7 Ch 9	8
	11	12 Final	13	14	15