

Physics 2014: General Physics Syllabus

Course Description: Calculus based introductory physics course for science, math and engineering majors focusing on motion and mechanics.

Lecture Time and Place: Tuesday and Thursday 09:00 - 09:50, Physical Sciences 141 (PS141)

Instructor:

Eric Benton

Email: eric.benton@okstate.edu

Office: 208B Physical Sciences bldg.

Tel: 405-744-2508

Laboratory: 100 Venture I (off campus)

Office hours: TTh 10:00-11:30 (PS 208B) or by appointment

Course Website: <http://physicscourses.okstate.edu/benton/>

Prerequisites: MATH2144 (Calculus I) or concurrent enrollment

Textbook:

- Richard Wolfson, *Essential University Physics*, Volume 1, Pearson/Addison-Wesley, 2007, ISBN 0-8053-3829-2 Volume 1
- General Physics Laboratory Manual, Physics 1114 and 2014, OSU Department of Physics
- additional materials will be posted on the course website

Suggested (optional) Resources:

- M. E. Brown, *Schaum's Outline Series: Physics for Engineering and Science*, McGraw-Hill
- Hyperphysics Website: <http://hyperphysics.phy-astr.gsu.edu/hbase/hframe.html>

Course Format: Physics 2014, General Physics, is the first course in the two semester sequence for science and engineering majors. The course is comprised of three components:

- 1) Lecture (Tuesday and Thursday 09:00 - 09:50),
- 2) Recitation (Friday), and
- 3) Laboratory.

Regular attendance in all three is mandatory. In addition, students are expected to spend a significant amount of time in individual study, reading (and rereading) the textbook and additional materials, solving homework problems, and learning the material.

Lecture:

Lectures will be held twice weekly: Tuesday 09:00 to 09:50 and Thursday 09:00 to 09:50 in Room 141 of the OSU Physical Sciences building. Because of the large amount of material included in this course, it is not possible to cover all the material in the lecture. Important and challenging concepts, illustrated by examples, will be presented in the lectures. Additional material will be covered in the textbook and in "handouts" posted on the course website. In order for you to gain the maximum value from each lecture, it is essential for you to come to the

lecture prepared. This will usually mean reading the assigned sections of the prior to the lecture. Reading assignments will be given at the end of each lecture and posted on the course website.

Recitation:

In addition to the two lectures, there is a mandatory Recitation (discussion) session each week. These sessions are held on Friday at a time and place determined by the particular section in which you are registered. The Recitation session will focus primarily on solving example problems, on reinforcing the material presented in the lectures, and on reviewing the relevant material for pending exams. In addition to leading the Recitation sessions, the Recitation Teaching Assistants are available to help you in solving the homework problems during their regularly scheduled office hours.

Recitation Teaching Assistants:

Stephen Gabriel
Nathan Lindy
Razvan Stoian

Email: sgabri@mail.okstate.edu
Email: nclindy@okstate.edu
Email: razvan.stoian@okstate.edu

Below is the schedule for the Discussion and Recitation sessions for this course:

Section	Time	Location	Recitation TA
1,2,3	Fri 10:30 – 11:20 am	PS 109	Stephen Gabriel
4,5,6	Fri 8:30 – 9:20 am	PS 109	Stephen Gabriel
7,8,9	Fri 9:30 – 10:20 am	PS 109	Stephen Gabriel
10,11,12	Fri 11:30 – 12:20 pm	PS 109	Razvan Stoian
13,14,15	Fri 12:30 – 1:20 pm	PS 109	Razvan Stoian
16,17,18	Fri 12:30 – 1:20 pm	PS 112	Nathan Lindy
19,20,21	Fri 1:30 – 2:20 pm	PS 109	Nathan Lindy
22,23,24	Fri 2:30 – 3:20 pm	PS 109	Razvan Stoian
28,29,30	Fri 10:30 – 11:20 am	PS 121	Nathan Lindy

Laboratory:

There is a weekly laboratory session held each week. The laboratory experiments are designed to provide first hand experience with the physical laws and phenomena covered in this course. The laboratory experiments are conducted under the supervision of the Laboratory Teaching Assistant for your section and coordinated by Melissa Edwards. Additional information regarding the laboratory will be presented during your first laboratory session. Questions related to the laboratory should be addressed to your Laboratory TA or Ms. Edwards.

Laboratory Coordinator:

Melissa Edwards
Office: Physical Sciences B-57B

Email: melissa.g.edwards@okstate.edu
Tel: 405-744-0303

Homework:

Between 5 and 8 homework problems will be assigned each week during the lecture. The homework will be due the following week during the Discussion and Recitation session. You are required to submit all the homework assigned. The graded homework will be returned to you in the recitation session by your TA in the following week. Only 2-3 problems from each set will be graded in detail and points will be awarded for these graded problems. The other problems will also carry credit for completion. Each of the graded problems will carry the same weight, the remaining problems checked for completion will carry a combined weight equal to the weight of one graded problem. **Late homework will not be graded.**

The homework assignments are an essential part of the course. It is by doing these that you develop the problem solving skills that are required for success on the exams, and that are fundamental to your future studies in science and engineering. Your recitation instructors and I will provide assistance with your difficulties in solving problems during our scheduled office hours. The assigned problems represent only the minimum effort you should make outside the class. You should expect to work considerably more problems if you wish to earn a high grade in this course.

Exams:

There are three evening exams and a comprehensive final that will be given at the times listed in the schedule below and are given in the Fall Class Schedule. The midterm exams will be held in the evenings. Make sure that you leave this time slot free to take the exam. Books, math tables, dictionaries, other written materials, and scratch papers are not permitted. You may use an electronic calculator, but obtaining programmed information from a programmable calculator is not permitted. All problems, except multiple choices, must clearly show the physical principles being used, the substitution of any number into the calculation and the answers. All work must be done directly onto the exam paper provided. **No make-up exams will be given.**

First Exam	Tuesday	September 22	5:30 - 6:30 pm	PS 103, 110, 141
Second Exam	Tuesday	October 27	5:30 - 6:30 pm	PS 103, 110, 141
Third Exam	Tuesday	November 24	5:30 - 6:30 pm	PS 103, 110, 141
FINAL EXAM	Thursday	December 10	4:00 - 5:50 pm	PS 103, 110, 141

The exams will be graded carefully and thoroughly. **There will be no regrading of exams.**

Grading:

Your grade for the course will be determined on the basis of the following allocation:

Homework	5%
Laboratory	20%
Midterm Exams (15 pts each)	45%
Final Exam	30%
Total	<hr/> 100%

The grading scale will be approximately:

A	$\geq 88\%$
B	$\geq 78\%$
C	$\geq 65\%$
D	$\geq 55\%$
F	$< 55\%$

The actual dividing lines may be lowered to reflect the class distribution, but will not be higher than this scale

Excused Absences:

There will be no make-up exams for any missed exam (including the Final). In the case of an excused absence, your grade on a missed mid-term exam will be calculated from your average grade of the other two exams. This averaging will be done to a maximum of one exam. Additional missed exams will receive a grade of zero and this zero will be included in the calculation of your final grade.

In order for a missed mid-term exam to be excused, you will need to submit an acceptable, bona fide document that explains your absence (such as a note signed by your doctor) and a letter signed by you explaining your absence. Without this documentation you will receive a zero on the missed exam.

Cheating and Academic Dishonesty: Cheating is not permitted. The course will strictly adhere to the OSU policy regarding academic integrity.