

William Paterson University
Department of Physics

PHYS 110 Introduction to Physics 4 credits
Winter 2010
Course Outline

Instructor: S.H. Chung
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Prerequisites:
None

Text: *The Physics of Everyday Phenomena* 6th ed by Griffith

Course Objectives:

This is a one semester introductory physics course. A selected number of basic principles of physics are carefully examined and interpreted qualitatively and mathematically. Topics will include learning about the history of physics through the lives of major scientists.

Student Learning Outcomes:

1. Students will be able to learn the basic laws of motions, electricity and magnetism, some elements of modern physics.
2. Students will be able to appreciate the conservation laws of energy and momentum in action in everyday happenings.
3. Students will be able to acquire physical intuition to be more scientifically astute sophisticated.
4. Effectively express themselves in written and oral form.
5. Demonstrate the ability to think critically.
6. Demonstrate the ability to locate and use information.
7. Demonstrate the ability to integrate knowledge and ideas in coherent and meaningful manner.

Communication and Technical Assistance

This course is taught entirely on-line. Every student at William Paterson has a student university e-mail address. Your university e-mail address is attached to Blackboard, and that is the one that will be used to contact you about assignments and other matters related to the course. Please check your WPU email account and the WPU Blackboard on a regular basis for announcements.

AOL users: if you have AOL, you should minimize that screen and use INTERNET EXPLORER or a similar web browser, as AOL sometimes deletes the screen after so many minutes of inactive key strokes. This could be costly if you are working on an exam or paper and you lose a page or more of your work.

For technical assistance regarding Bb or problems interfacing with your pc, you must contact the computer consultants at Instructional Research & Technology through the HELP function.

Grading:

Evaluation will be based on the following work:

On-line quizzes: 20%

Two tests: 30%

Lab work: 15%

Essay: 10%

Final Exam: 25% (cumulative and mandatory)

Standard Evaluation:

The following grade scale will be used to assign final grades for this course:

<u>Cumulative final grade</u>	<u>letter grade</u>
95-100	A
90-94	A-
87-89	B+
84-86	B
80-83	B-
76-79	C+
72-75	C
68-71	C-
64-67	D+
55-63	D
< 55	F

Course Content:

This course is organized into 5 units. Each unit is comprised of chapters, and each chapter is broken down into two sections: Readings, Lessons.

- Readings – This section includes the learning objectives for the chapter, required readings in the text for this course, and key concepts, which are a summary of the critical information covered in the chapter. You are encouraged to read more topics on your own during (and after you complete this) course.
- Lessons – Each chapter contains lectures and/or multimedia lessons that provide the material introducing new topics to be studied. Associated with each lesson may be one or more of the following items:
 - Study Sheets – This section includes more information on the lesson topic.
 - Practice Problems – This section includes problems related to the lesson topic. These sets represents the minimum requirement to get to understand the course material.
 - Self-Check – This section usually includes a self-check quiz to help you review and prepare for the assessment.
 - Assessments – This section includes a graded quiz and a lab exercise. Make sure you have studied all the material for the Lesson BEFORE attempting the quiz and lab exercise. The lab exercises may involve data analysis, conducting simple experiments using materials that are readily available, and simulation exercises.

Examinations – You are required to complete time-limited two Tests and a final examination.

Units:

1. Classical Mechanics
2. Vibrations and Waves
3. Matter and the Structure of Atoms
4. Fluids and Thermal Physics

5. Electricity and Magnetism

Course Expectations:

- (1) Students are expected to read the textbook and study those topics covered in the lecture.
- (2) Students are expected to complete all assignments and lab exercises.
- (3) There will be two tests and a final examination.

Other required materials:

A scientific calculator.

help: I will be pleased to provide help. **Please ask.**

Academic Dishonesty

Submitting assessment material for this course which does not represent your original effort is a serious form of academic dishonesty. Having a third party (eg. tutor, friend, etc) complete any of the assessments is in violation of the University regulations on academic dishonesty (ww2.wpunj.edu/admroot/admnsrv/hr/facultyhandbook2000/studentcodeofconduct.htm) .