PHYSICS 101: General Physics

Spring 2007 Schedule

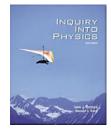
Online Syllabus: www.uwsp.edu/physastr/kmenning/Phys101.mht
WebAssign: www.webassign.net/student.html
WebAssign Hints

| Instructor: | Dr. Ken Menningen | Office hours: | <u>M</u> | <u>T</u> | W | <u>R</u> | <u>F</u> |
|-------------|------------------------|----------------|----------|----------|---|----------|----------|
| Office: | B203 Science Building | 9:00am-10:00am | | X | X | X | X |
| Phone: | (715) 346-4871 | 1:00pm-2:00pm | | X | | X | X |
| email: | Ken.Menningen@uwsp.edu | 3:00pm-4:00pm | X | | X | | |
| | | By appointment | X | X | X | X | X |

Course Prerequisites: none

Required text: *Inquiry into Physics*, Ostdiek and Bord, 5th edition (http://physics.brookscole.com/ostdiek). (available at Text Rental)

Other required materials: Scientific calculator (graphing capability is **not** necessary), a laboratory manual (purchase at the bookstore for \$6), and a WebAssign access code (purchase online or at bookstore for \$12).



Course Objectives: *General Physics* is a fast-paced course offering a survey of classical and modern physics. The principle objectives are:

- Understand the fundamental concepts of classical and modern physics
- Use algebra to explain measurements and make predictions
- Use physics concepts to explain everyday phenomena

Attendance: Attendance is not required but it is a disadvantage to miss any lectures because the lectures, demonstrations, and in-class activities will greatly enhance your ability to understand the material. There will often be quizzes or assignments done in class that are worth points. If you are ill, please contact me *before class* to make arrangements. Late quizzes are not allowed without permission, but I drop the lowest quiz grade. Late exams are not allowed, but in special cases, and with my permission, you may take an exam early.

Grading policy: The grade you earn in this class will be based upon the five assignment types listed below. A grading scale is also given for your reference. Grades are not curved, encouraging you to work together, but I expect each student to hand in their own work. The lowest lab, homework and in-class grades will be dropped at the end of the semester.

| ng Scale | Grade Break | Grade Breakdown | | | |
|--------------|-----------------------------------|---|--|--|--|
| <u>Score</u> | Assignment | Weight | | | |
| 85-100 | Midterm exams | 30% | | | |
| 74-84 | Final exam | 20% | | | |
| 60-73 | Homework | 15% | | | |
| 50-59 | In-class work | 10% | | | |
| 0-49 | Labs | 25% | | | |
| | 85-100 74-84 60-73 50-59 | Score Assignment 85-100 Midterm exams 74-84 Final exam 60-73 Homework 50-59 In-class work | | | |

Exams: Midterm exams are scheduled to occur on February 15, March 15, and April 19. These dates may change but it's not likely. The comprehensive final exam is scheduled for Wednesday, May 16 at 8:00 am.

Homework: Two types of assignments go into the homework category. The **chapter assignments** can be handed in using a web-based system that allows multiple submissions and gives instant feedback but will not allow late entries. The WebAssign system requires a \$12 fee that can be paid online or at the bookstore. There will also be questions about occasional New York Times articles that I will ask you to read. To avoid a zero for late homework you must warn me by phone or email *before they are due* and make special arrangements. If you are too ill to complete the assignment, please see a doctor, and have the doctor write an excuse. You should not believe that the homework problems are sufficient practice for the exam. Instead I recommend that you work out at least five additional problems for each chapter from the text. The answers to odd problems are provided in the text and I have the solutions to even problems as well.

In-class work: During nearly every lecture I will present some **response questions** for which you may earn points by using the PRS system. On many days there will be a short **quiz** covering material that you have recently learned. Regard them as a "safe" practice experience for the exam and as some measure of how well you understand the material. In addition, some "**class quizzes**" may be given in which you may confer with other students and vote as a class on the answer. These quizzes might improve your quiz grade but will not hurt it.

Labs: You must earn at least a 60% score in the laboratory portion to pass the course. The lab grades will be determined from a combination of lab quizzes and in-lab assessments such as a graph that you have prepared or your answers to some questions. The labs are designed to illustrate and expand upon the topics we cover in the lecture portion of the course. The lab quizzes are open lab manual but are not easy. Make sure you complete the entire lab and that you understand the concepts underlying the lab activity.

Tentative Course Schedule

| Week | Chs. | Topics | | | |
|--------|---|-----------------------------|--|--|--|
| 1 | 1 | Describing motion | | | |
| 2 | 2 | Newton's laws of motion | | | |
| 3 | 2-3 | Motion in 2 dimensions | | | |
| 4 | 3 | Mechanical energy | | | |
| 5 | 4-5 | Fluids and gases | | | |
| 6 | 5 | The laws of thermodynamics | | | |
| 7 | 5-6 | Entropy, wave motion | | | |
| 8 | 6 | Waves | | | |
| 9 | 6-7 | Sound, electrostatics | | | |
| 10 | 7-8 | Circuits and magnets | | | |
| 11 | 8-9 | Electrodynamics | | | |
| 12 | 9 | Optics | | | |
| 13 | 10 | Atomic physics | | | |
| 14 | 11-12 | Nuclear physics, relativity | | | |
| 15 | | [no class] | | | |
| [Ean a | [For a detailed source schedule with links to lecture | | | | |

[For a detailed course schedule with links to lecture content, see the online course schedule]

Community Rights & Responsibilities:

Students with special needs should contact the Office of Disability Services during the first two weeks of the semester in order to request accommodation. An Exam Accommodation Request Form is available online. Religious beliefs will be accommodated according to UWS 22.03 as long as the student notifies the instructor about the conflict within the first three weeks of class. Students are expected to maintain the highest standards of academic integrity for their work in this course. The University of Wisconsin-Stevens Point dedicated to a safe, supportive and non-discriminatory learning environment. It is the responsibility of all students to familiarize themselves with University policies regarding special accommodations, misconduct, religious beliefs accommodation, discrimination and absence for university sponsored events. (For details please refer to the Community Rights & Responsibilities documents, including the Student Academic Standards and Disciplinary Procedures document.)