

Instructor: Dr. Gary Pennington
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 Email : gpenning@umd.edu
 Office Hours: MW 8-9 pm, F 7-8 pm, or by appointment

Schedule :

Lectures :	M, Tu, W, Th, F	5:30 – 6:50 pm	Room 1402	PHY
Recitations:	M, W	7:00 – 7:50 pm	Room 1402	PHY
Lab:	Tu, Th	7:00 – 9:00 pm	Room 3314	PHY

Course Description: This is the second semester of a two-semester sequence in introductory physics. The subjects covered this semester will be: waves, electricity and magnetism, optics and modern physics. Prerequisite: PHYS141 or equivalent. Credit will be granted for only one of the following: PHYS142, PHYS260 and PHYS261, or PHYS272.

Required Materials

- Textbook: *Physics for Scientists and Engineers, A Strategic Approach, Vol.s 3-4, 2nd Edition, by R.D.Knight*
- Mastering Physics access code (comes with a new book, or you can purchase separately from the bookstore or www.masteringphysics.com). CourseID: MPPENNINGTON26408
- Physics 142 Laboratory Manual, UMCP
- Electronic Clicker (optional, if you don't have one write answers on paper each lecture and turn in)

Exams: There will be three exams during the semester, which occur during a regular discussion or lecture class. The final exam is cumulative. The preliminary schedule (subject to change) is as follows:

Tuesday, July 24th	5:30 – 6:50 pm (Midterm 1)
Tuesday, August 7th	5:30 – 6:50 pm (Midterm 2)
Friday, August 17th	5:30 – 6:50 pm (Final)

Makeup exams will only be given for those with a valid documented excuse. If you know ahead of time that you will miss an exam you must notify me before the exam. If you miss an exam due to an emergency let me know as soon as you can, by any means possible.

Homework: Regular homework is assigned to try to insure that you are keeping up with the course material and to act as a measure of your understanding of the material. If you are having difficulty with the homework this is a sure sign that you should seek some assistance. Students are encouraged to work together on homework but **each person must submit their own homework and numeric answers will in general not be the same for each student.** Details on the academic honesty policy can be found at www.testudo.umd.edu/soc/dishonesty.html.

We will be using *Mastering Physics* to **assign and grade** the homework problems on the web. In order to do well on the exams and quizzes, solutions to the homework problems should also be written out. You should be able to explain each step of your solution in English using logic and reasoning. The online homework *may* also be supplemented with one or two hand written problems to be turned in during the lecture. This will be announced in the lecture and on the elms website. The following tentative homework guidelines will apply.

Approximately 10-25 problems will be posted at the website at least one week before the due date. Check the course syllabus and Elms announcements for the due dates. Work those problems to completion and submit the answers on the web. You will be informed immediately if your answer is correct or incorrect and will be allowed multiple attempts. All homework problems should be hand written out for your records. Late homework will not be accepted.

Electronic homework submission: To turn in your homework, you need to go to:

<http://www.masteringphysics.com/>

The site is best accessed with a current version of Windows Explorer. If you run into problems check the system requirements. If you have not used Mastering Physics before then you should log on to the site and try the practice homework set before attempting any of the real homework sets.

In order to turn in your homework, you will need to register at the Mastering Physics website <http://www.masteringphysics.com/>. To register, you need two things - an access number and the class ID **MPPENNINGTON26408**. The access number should be packaged with new copies of the Knight textbook. If you want to buy a used book, make sure you purchase an access code at the Mastering Physics website.

Laboratories: See the P142 lab manual and the syllabus schedule describing the laboratory dates and grading.

Discussions: Recitations meet twice a week for the purpose of discussing homework problems, reviewing important concepts from the lectures, and administering quizzes. Typically there will be a quiz based on a specific textbook chapter as specified in the syllabus schedule. The quiz will emphasize hand written solutions and explanations of physical concepts.

Lecture Class Questions: You are required to attend class and complete assigned in class quiz questions.

Help: Help in understanding the concepts and solving problems can be obtained in a variety of ways. If you have a question or any difficulty, take advantage of all the available resources. These include:

1. Discussions with me before or after class, or in my office
2. Your recitation section, which is designed for just this activity
3. The Slawsky Clinic.

Bulletin Board and Email: Please check Blackboard every class day, to log in go to **www.elms.umd.edu**. I will communicate important information there or post solutions. I will also use email extensively. When sending an email please begin subject line with "PHYS142:"

Grade: Your grade will be based on the following components:

Two Midterm Exams (13% each)	26%
Final Exam	20%
Homework	16%
Quizzes	8%
Lecture Questions	5%
Laboratories	25% (if all labs completed, F otherwise)

All grades are subject to "curving" and there is no set correspondence between numbers and letters. **In general, a letter grade is only associated with the final course grade**, but I can provide you an estimate of how I think you are doing, if requested.

Preliminary schedule (as of July 2, 2012)

M 7/9 Lec: Intro,CH 26 Dis: Lecture	Tu 7/10 Lec: CH 27 Lab 1	W 7/11 Lec: CH 27,28 Dis: <u>Quiz1</u> CH26	Th 7/12 Lec: CH 28 Lab 3 HW Intro to MP due 11pm	F 7/13 Lec: CH 29 HW1 due 11pm Sat
M 7/16 Lec: CH 29 Dis: <u>Quiz2</u> CH27 HW2 due 11pm	Tu 7/17 Lec: CH 30 Lab 2	W 7/18 Lec: CH 31 Dis: <u>Quiz3</u> CH28	Th 7/19 Lec:32 Lab 4	F 7/20 Lec: CH 32 HW3 due 11pm Sat
M 7/23 Lec: Review Dis: <u>Quiz4</u> CH29 HW4 due 11pm	Tu 7/24 Lec: <u>Exam I CH 26-32</u> Lab 5	W 7/25 Lec: CH 33 Dis: <u>Quiz5</u> CH30	Th 7/26 Lec: CH 33,34 Lab: Lecture	F 7/27 Lec: CH 34 HW5 due 11pm Sat
M 7/30 Lec: CH 20 Dis: <u>Quiz6</u> CH33 HW6 due 11pm	Tu 7/31 Lec: CH 20,21 Lab 6	W 8/1 Lec: CH 21 Dis: <u>Quiz7</u> CH34	Th 8/2 Lec: CH 35 Lab 7	F 8/3 Lec: CH 36 HW7 due 11pm Sat
M 8/6 Lec: Review Dis: <u>Quiz8</u> CH20 HW8 due 11pm	Tu 8/7 Lec: <u>Exam II CH 33-36,20-21</u> Lab 9	W 8/8 Lec: CH 22 Dis: <u>Quiz9</u> CH21	Th 8/9 Lec: CH 22,23 Lab 10	F 8/10 Lec: CH 23,24 HW9 due 11pm Sat
M 8/13 Lec: CH 25 Dis: <u>Quiz10</u> CH22 HW10 due 11pm	Tu 8/14 Lec: CH 25,37 Lab 11	W 8/15 Lec: CH 37 Dis: <u>Quiz11</u> CH23	Th 8/16 Lec: Review Make-up Lab HW11 due 11pm	F 8/17 Lec: <u>Final Exam CH 20-37</u>