

## PHYS122 Fundamentals of Physics II

### Summer 2010 – Evenings, July 12 Monday to August 20 Friday

0281(19578) J. Streets (Seats=24, Open=11, Waitlist=0) [Books](#)  
Meets 07/12/10-08/22/10

MTuWThF... 5:30pm- 6:50pm ([PHY](#) 1201)  
TuTh..... 7:00pm- 9:00pm ([PHY](#) 3312) Lab  
MW..... 7:00pm- 8:00pm ([PHY](#) 1201) Dis

0282(19579) J. Streets (Seats=24, Open=21, Waitlist=0) [Books](#)

Meets 07/12/10-08/22/10  
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MW..... 7:00pm- 9:00pm ([PHY](#) 3312) Lab  
TuTh..... 7:00pm- 8:00pm ([PHY](#) 1201) Dis

### Contact Information and Office hours

Please send email to arrange a time.

Lecturer

- Dr J. Streets Room 3102 [streets@umd.edu](mailto:streets@umd.edu)

Teaching assistants

- 0281 Vijay Kaul Room 0220 [Vijay@umd.edu](mailto:Vijay@umd.edu) (preferred time – hour after discussions)
- 0282 Nightvid Cole Room 0104 [ncole1@umd.edu](mailto:ncole1@umd.edu) (preferred time M-W 4.30pm-5.30pm)

### Labs – Room 3312

Nine labs, must be handed in 1 week after finished. Late labs will not contribute to the final grade.

**All labs must be completed to get a passing grade.**

Lab instructions are either in the PHYSICS 122 Laboratory Manual (Fall 2008 ed.), or will be on a separate handout. Note the Ray Optics handout will be distributed later in the course.

Labs will be graded by either a formal report, or an informal report and quiz. The quiz will be held in the following lab.

Week and Day	Lab Practical	Lab Manual #	Quiz or Report	Due 5.30pm on
1 MTu	No Labs			N/A
1 WTh	Functions and Graphs, the Oscilloscope	Page 34	Report	22 July
2 MTu	Electrostatics		Quiz	27 July
2 WTh	Current-Voltage Relationships		Quiz	29 July
3 MTu	DC Circuits I Kirchhoff's Law		Quiz	3 August
3 WTh	DC Circuits II Current Voltage Distribution		Quiz	5 August

4 MTu	e/m of the Electron	Page 71	Report	10 August
4 WTh	Electromagnetic Induction		Quiz	12 August
5 MTu	Standing Waves on a Vibrating String	Page 27	Report	17 August
5 WTh	Ray Optics		Report	19 August
6 MTu	Make Up Lab			19 August
6 WTh	No Labs			N/A

## Lecture Schedule - Room 1201

### Week 1 - 12 July

Introduction - Schedule: lectures, labs, homework, midterms, finals.

Ch. 20 Electric Forces and Fields

Ch. 21 Electric Potential

### Week 2 - 19 July

Ch. 22 Current and Resistance

W First Midterm 5.30pm - 6.50pm (Ch. 20,21,22)

Ch. 23 Circuits

### Week 3 - 26 July

Ch. 24 Magnetic Fields and Forces

Ch. 25 Electromagnetic Induction and Electromagnetic Waves

F Second midterm (Ch. 23,24,25) 5.30pm - 6.50pm

### Week 4 - 2 August

Ch. 14 Oscillations

Ch. 15 Traveling Waves and Sound

F Third midterm (Ch. 14-15) 5.30pm - 7pm

### Week 5 - 9 August

Ch. 16 Superposition and Standing Waves

Ch. 17 Wave Optics

Ch. 18 Ray Optics

### Week 6 - 16 August

Ch. 19 Optical Instruments

Ch. 30 Nuclear Physics – if time

Th Review

F Final exam (all Chapters) 5.30pm-7.30pm

## Discussions

Room number 1201 (same as Lecture)

## Homework

6-8 Problems per chapter (16-18 per week 1-5). Due on the Monday after that chapter finished.

Will be marked and returned on following Friday.

No Homework given on chapters in the last week.

Week	Chapters	Due in 5.30pm
1	20,21	19 July
2	22,23	26 July
3	24,25	2 August
4	14,15	9 August
5	16,17,18	16 August

## Grading

Homework	10%
Lab Practicals	25%
Mid-Terms (best 2 of 3)	40% (equation sheet + calculator)
Final	25% (equation sheet + calculator)

Grades will be submitted to UMEGS no later than 9pm August 24, 2010.

## Exams

There will be three 80-minute examinations and one final 120-minute exam. Your lowest exam score on the three 80-minute exams (not the final) will be dropped. All exams are cumulative. The exam will include problems and conceptual questions. You are responsible for showing up on time with a working calculator. A separate handout containing physics constants and equations will be provided. Make up exams will be given only under extraordinary circumstances, and if arrangements are made with me ahead of time. If you miss one exam due to serious illness or other extraordinary circumstances, that will be the exam that is dropped. If you miss two exams due to serious illness or other extraordinary circumstances, please contact me so we can make arrangements.

## Academic Integrity

Along with certain rights, students also have the responsibility to behave honorably in an academic environment. Academic dishonesty, including cheating, fabrication, facilitating academic dishonesty, and plagiarism will not be tolerated. Any abridgement of academic integrity standards will be referred directly to the Assistant Dean and forwarded to the University's Office of Judicial Affairs.

Confirmation of such incidents can result in expulsion from the University. Students who are uncertain as to what constitutes academic dishonesty should consult the University publication entitled Academic Dishonesty.

Of course, you must work by yourself on exams. You are allowed to work with other students, your TA

and your instructor on your homework and on the labs. However, you should not just directly copy from them. Doing so is not only dishonest, it will hurt your ability to do the problems on the exams.

You should also be aware of the University of Maryland Honor Pledge. Information can be found at <http://www.inform.umd.edu/honorpledge/>

The Honor Pledge is a statement undergraduate and graduate students should be asked to write by hand and sign on examinations, papers, or other academic assignments not specifically exempted by the instructor. The Pledge reads:

"I pledge on my honor that I have not given or received any unauthorized assistance on this assignment/examination."