

Syllabus for Physics 122, University Physics II

Spring 2009

Class meetings: MTWF, 10:00 – 10:50 a.m., Thompson Hall Rm 175

Instructor: Dr. Amy VanEngen Spivey

Contact information: Department of Physics, Thompson Hall 165E, aspivey@ups.edu,
(253) 879-3800

Office hours: Feel free to stop by anytime. I'll definitely be in the office on Mondays from 3 to 4 p.m., Tuesdays 12:30 to 2 p.m., and Wednesdays from 8:30 to 9:30 a.m., or you can make an appointment at another time.

Required textbook: Serway and Jewett, *Physics for Scientists and Engineers*, Thomson Brooks/Cole, 7th Edition (2008).

Web-based course resources: Blackboard (<http://blackboard.ups.edu>). See end of syllabus for more details.



Some big questions we'll encounter in this course -

How do mirrors and lenses steer light in order to create images?

What is an electric field? What is a magnetic field?

How does a particular configuration of electric charge determine the electric potential in the surrounding area?

How are current and voltage related?

What determines how much current flows through a particular branch of an electric circuit?

What causes lightning?

How do hydroelectric generators convert mechanical energy to electric al energy?



Important dates -

Tuesday, Jan. 20 - First day of class, start Chapter 35 (Optics)

Friday, Jan. 23 - Start Chapter 36 (Image Formation)

Monday, Feb. 2 - Start Chapter 23 (Electric Fields)

Friday, Feb. 13 - TEST #1

Monday, Feb. 16 - Start Chapter 24 (Gauss' Law)

Friday, Feb. 20 - Start Chapter 25 (Electric potential)

Friday, Feb. 27 - Start Chapter 26 (Capacitance and dielectrics)

Tuesday, March 10 - TEST #2

Wednesday, March 11 - Start Chapter 27 (Current and resistance)

March 16 to March 20 - *No class due to Spring Recess.*

Monday, March 23 - Start Chapter 28 (Direct current circuits)

Monday, March 30 - Start Chapter 29 (Magnetic fields)

Tuesday, April 7 - TEST #3

Wednesday, April 8 - Start Chapter 30 (Sources of the magnetic field)

Tuesday, April 14 - Start Chapter 31 (Faraday's Law)

Monday, April 20 - Start Chapter 32 (Inductance)

Wednesday, April 29 - Start Chapters 33 and 34 (AC Circuits and Electromagnetic Waves)

Tuesday, May 5 - TEST #4

Wednesday, May 6 - Last day of class

Friday, May 15 - Final exam, 8 - 10 a.m.

Student responsibilities:

- 1) Attendance – The easiest thing you can do in order to do well in this course is attend class. Attendance will be taken at the start of the semester and periodically throughout. While attendance alone will have no direct effect on your grade, your participation in class sessions will facilitate learning and understanding of the course material.
- 2) Reading - You are expected to read the textbook in order to prepare for our time together in class. The reading schedule will be posted on Blackboard and continually updated.
- 3) Homework – There will be homework assignments due approximately weekly. The assignments will be divided into two categories: Exercises and Homework Problems. The Exercises are to be completed on your own, but they won't be collected. The Homework Problems must be turned in at the beginning of class on the due date. New assignment postings will be announced in class, but it is your responsibility to download the assignments from the Blackboard site. Solutions to the Homework Problems will be posted on Blackboard after the due date. You should use the solutions to re-work Homework Problems that you didn't understand the first time around, and feel free to ask lots of questions!
- 4) Laboratory work - This course has a required experimental component, for which you should have registered separately. Your lab grade will make up 15% of your overall course grade, and in order to pass this class, your grade in the lab portion must be 60% or above. Labs are held in Harned Hall, Room 135.
- 5) Tests – Four non-cumulative tests will be given in class on the dates listed above. Each test will cover the material discussed since the last exam or, in the case of the first exam, since the beginning of the course. On the tests, you may use a calculator and a 3”X5”-inch card with equations on it. No example solutions are allowed on the equation card, and you will be asked to turn in the equation card with your test. No other notes, books, or outside assistance are allowed.
- 6) Final exam – The final written exam will be cumulative over all material covered during the semester. According to the university, it is scheduled for Friday, May 15, from 8 to 10 a.m.. All students must take the exam on the scheduled date and time.

Policies and procedures:

- 1) Late homework – Late homework will not be accepted. If you must miss class, please send your homework with a friend or turn it in to the professor in advance.
- 2) Make-up tests – In order to make up a missed test, you must let the professor know in advance that you will be absent, except in the case of a health or family emergency. In either case, please inform the professor as early as possible that you'll be missing the test by e-mail or by phone message (879-3800). I also request that you obtain a signed and dated note from your doctor or family member, addressed to me, stating that the illness or other emergency prevented you from taking the exam at the scheduled time, and/or from notifying me ahead of time of your absence. Make-up test dates and times will be arranged at the convenience of the instructor.
- 3) Academic honesty – While students are encouraged to discuss homework assignments and help each other, each student must hand in their own work. Any indication that homework solutions have been copied directly from another person, book, Web site, or any other outside source may result in a zero on that assignment and possible disciplinary action. In addition, any dishonesty on tests will result in a zero grade for that test and possible disciplinary action. For more information, see The Logger (UPS Student Handbook) online at <http://www.ups.edu/logger.xml>. The direct link to the Academic Honesty Policy is <http://www.ups.edu/x4718.xml>.

- 4) Grading- Course grades will be weighted as follows: Homework: 20%, Laboratory: 15%, Four tests: 40% total, Final exam: 25%. The grading scale will be approximately as follows: 92.0 – 100.0 % = A; 90.0 – 91.9% = A-; 88.0 – 89.9% = B+; 82.0 – 87.9% = B; 80.0 – 81.9% = B-; 78.0 – 79.9% = C+; 72.0 – 77.9% = C; 70.0 – 71.9% = C-; 68.0 – 69.9% = D+; 62.0 – 67.9% = D; 60.0 – 61.9% = D-; 0.0 – 59.9% = F. However, the instructor reserves the right to adjust the grading scale.
- 5) Students with disabilities - Efforts will be made to accommodate students with physical or learning disabilities. Students with disabilities who seek accommodation must request it through Ivey West, the UPS Coordinator of Disabilities Services, whose office is located in the Center for Writing and Learning. Appointments can be made by calling 879-2692. For more information, visit <http://www.ups.edu/disabilities.xml>.
- 6) Cellular phone policy - Use of cellular phones or pagers during class is not permitted. Please practice respect for your classmates and the professor by turning phones off and putting them away before class starts.
- 7) Mid-course modifications - The instructor reserves the right to make changes to the syllabus at any time during the semester and to inform students of changes at that time.

If you want extra help -

If you are having trouble in the course, either with doing the homework or understanding the reading or in-class discussions, please come to my (Dr. Spivey's) office and ask questions. I have an open-door policy, and I'm here to help you. If you have trouble finding me at random times, I will definitely be there during my scheduled office hours.

Free physics tutoring is also available at the UPS Center for Writing, Learning, and Teaching in Howarth Hall. Information can be found at <http://www.ups.edu/cwlt.xml>.

Blackboard - Homework assignments and other course information will be posted on the Web using Blackboard. You will also be able to access your homework scores and grades for the course there.

Here are the instructions for accessing the Blackboard system at <http://blackboard.ups.edu>:

1. If you have used Blackboard in the past, please use your old account to log in this year. If you do not remember your password, please visit the OIS Help Desk to have your password reset.
2. If you are new to Blackboard, go to the website above and click on **Create Account**.
3. Fill in the required information, then scroll to Section 5 and click **Submit**.
4. Once you have created a new account and logged in, click on the **Courses** tab in the top area of the screen.
5. In the **Course Search** field, type in the class number of the course, and search for it.
6. When you find the course, click the **Enroll** button to the right of the course information. Enter your access code (provided by your professor).

The access code for this class is: _____.
(access code given out on 1st day of class)