Physics 214, Section 1 - Syllabus - Spring 2016

134 Brevard Hall

TuTh 8-9:15am

Text: Physics, 7th. Ed., Giancoli

Dr. Vance Eschenburg

Email: vance70@gmail.com

Office: 121A Lewis Hall

Website: physics214.com Office Hours: 9:30-11:30am, 4-5pm TuTh

Phone: 662.915.3887 Twitter: @drv

Grades

Your semester grade for this class is based on three tests, a final, and homework.

<u>3 Tests</u>: Feb 25 (15%), Mar 31 (20%), and Apr 28 (25%)

The tests occur during class time. However, the testing location is the large hall of the Jackson Avenue Center (JAC). These tests were scheduled in late October.

<u>Final</u>: (30%)

Tuesday, May 10, 8-11am

This final is not at noon. All students must take their final at the scheduled time. The testing location is the large hall of the Jackson Avenue Center (JAC).

Homework: (10%)

This will be a combination of written and online assignments.

The class is on the Plus/Minus Grading Scale (Lab grading scale will be discussed in lab):

A's: (88.00% - 91.9999% A-) (92.00% - 100.00% A)

B's: (76.00% - 79.9999% B-) (80.00% - 83.9999% B) (84.00% - 87.9999% B+) C's: (64.00% - 67.9999% C-) (68.00% - 71.9999% C) (72.00% - 75.9999% C+)

Other: (< 50.00% F) (50.00%-63.9999% - D)

There will be no rounding.

Top Hat Monocle

TopHat is a class enhancement app that goes on your phone, laptop, desktop, ipad, etc. We'll be using it primarily in class but it may be used on occasion in the labs where Dr. Eschenburg is the IOR. The website is tophat.com

Join code: 589563

Things to bring to lab/class

Composition Notebook (Used for labbook) Prelab and lab printouts obtained from physics224.com colored pens, pencils, calculator, ruler thumb drive (at least 32 GB)

Lab Schedule - Very important!

Goto physics224.com and download the appropriate materials, schedules, etc. for lab. Do not buy a lab manual from the bookstore. Everything is free online.

Week of	Class	Lab
Jan 26	Ch. 16	Meet and Greet
Feb 2	Ch. 17	E13: Electrostatics
Feb 9	Ch. 18	E14: E Fields and Potentials
Feb 16	Ch. 19	E15: Ohm's Law
Feb 23	Review, Test 1	E16: Series and Parallel Circuits
Mar 1	Ch. 19	E17: Kirchoff's Laws
Mar 8	Ch. 20	E18: Earth's Magnetic Field
Mar 22	Ch. 21	E19: Current Balance
Mar 29	Review, Test 2	E20: Exponentials and Oscilloscopes
Apr 5	Ch. 22,23	E21: Geometric Optics
Apr 12	Ch. 24	E22: Thin Lenses
Apr 19	Ch. 25,27,30	E23: Wave Optics
Apr 26	Review, Test 3	E24: Spectroscopy
May 3	Review for Final	Dead Week

Frequently Asked Questions: FAQ

- 1. What is the Instructor of Record (IOR)? The IOR is your professor and listed on your schedule. They have the final word with regards to your grade and admittance into the class/lab. They determine if absences are excused/unexcused. Though they are not involved in the day to day activities of the lab, they do run the lab behind the scenes.
- 2. What is the attendance policy of the labs? When in doubt, go to lab. If you don't think the rules apply to you, the rules are applied to you first. Three unexcused absences will result in a final grade of F. If you do not attend both of the first two labs, you may be removed from the lab and the class. Excused/Unexcused examples are listed in the next section. The IOR determines if the absence is excused. If documentation is not provided, the absence is automatically labeled as 'unexcused.'
- 3. Student: 'Dr. Eschenburg! But *insert other department name here* cancelled their labs for this week. I can miss lab, right?' Me: 'No. Go to lab.' If labs are ever cancelled, and you are in an Eschenburg lab, you will receive an email directly from me.
- 4. How can I be in an Eschenburg class and a Labuda/Marshall lab? A small group of my students are in sections that belong to Dr. Labuda or Dr. Marshall. This means that those professors are those labs' IOR's and are in charge of those labs. Any questions concerning those labs should be sent to them. I cannot add you to their labs. I cannot change grades in those labs. I can sign the form dropping you out of their lab and adding you into mine.
- 5. Whats the best way to change my lab? If you wish to change into one of my lab sections, come to my office and we will fill out an add/drop form. Do not attempt to change lab sections on your own. The MyOleMiss computer is a cruel and jealous tyrant. If you drop the lab, MyOleMiss will drop you from the class. We have professionals in our department who are able to persuade MyOleMiss to do our bidding and are happy to move you.

- 6. Can I drop the lab and stay in the class? No.
- 7. If I ask 'Can I drop the lab and stay in the class?' politely, will that work? Your courtesy is noted, but the answer is still no. This is the policy of the physics department.
- 8. But I can drop the organic chemistry lab and stay in their class. Can I now drop the lab and keep the class? Nope. The only way you can take the class and not the lab is if you failed the class but passed the lab in a previous semester.
- 9. What is the attendance policy of the classes? According to University policy, you are expected to scan your ID or sign in (if your ID is not available) at the beginning of every lecture you attend for the first two weeks: Aug 25, Aug 27, Sep 1, and Sep 3. Afterwards, you will have the option of entering it via ID scan or your Top Hat Monocle app on your phone. Though your attendance will have no direct contribution to your grade, I will use it when considering boundary grades.
- 10. Bonus? Did I hear the word bonus? Not quite. This is the sausage making part of the class and I don't discuss it in detail. I understand how upsetting C-'s are and work to avoid them. I do everything I can, within reason, to help your grade and never to hurt it. If I curve, I always curve up and never down.
- 11. Where do I take the tests? The tests and final will be held in the Jackson Avenue Center (JAC). You can get to it by taking Fraternity Row across West Jackson. The Brown Line goes to the JAC every 8-10 minutes. I consider it to be the best testing environment for our class.
- 12. The class is on the 'Plus/Minus' system and the lab is on the 'ABC' system. Yes.
- 13. When is the drop date? March 4. If you do drop, you must drop both the class and the lab.
- 14. When do the midterm grades come out? March 7 Your midterm grade will be your test one grade. Thats 15% of your total grade. Don't freak out if you don't get the grade you want. The first test of 213 usually 'wakens everyone to reality.' You'll do better. If the administration didn't require me to do this, I wouldn't submit a midterm grade.
- 15. One of my other professors scheduled a test today that conflicts with one of your physics labs/test. What do I do? You inform the other professor that you need to take their test at another time. It against university policy to have another class arrange activities that overlap officially scheduled physics labs/tests. If the other professor doesn't understand, please let me know. Our department loves to deal with these kinds of problems.
- 16. What is this 'book' that Dr. Eschenburg keeps talking about? 'The Book' is my book of grade corrections and notes that always stays in my office. Its more official and important than Blackboard. Grade changes do not always show up on Blackboard. But if its 'in the book,' its official.
- 17. What grades can I drop? There are no dropped grades in my class or in any of my labs.
- 18. What if I miss the Final? Since neither of the finals start at noon, everyone must take their final at their scheduled time. If its a non-excused absence, a grade of 0 will be entered. If its an excused absence, the grade of 'incomplete' will be assigned and a makeup final will be given no earlier than July 1, 2016. I recommend not missing the final.

Excused/Unexcused Absence Examples

Excused absences (must bring documentation, funeral announcement, Departmental letter, etc):

- Death of immediate family member
- Official Ole Miss event (football, marching band, cheerleading, etc.)
- Standardized test (GRE, OAT, PCAT, MCAT, etc)
- Graduate/Med/Pharmacy School interview
- Severe Illness or Injury (Coma, mono, sinus infection, flu, kidney stone, burst appendix, etc)
- Held hostage on bus

Unexcused absences:

- Death of any member of boyfriend's/girlfriend's family or your own extended family
- Death of a pet.
- Greek social or philanthropic event (I'll be happy to sign a letter to your group stating you have academic obligations and are excused from their event.)
- Job interview
- Mardi Gras
- Slight cold or 'I don't feel well.'
- Organic Chemistry cancelled their labs.
- Other class schedules test during Physics lab/class/test/final.
- The bus was running late. (Or missed the bus.)

Homework/Test advice (How to make sure your grader is in a good mood.)

- 1. Written homework will be accepted at two locations: The lecture table next to the stapler during class. The drop box in Lewis 121. Don't include the homework sheet given to you. Staple it together in the upper left hand corner.
- 2. Good penmanship. Don't write in 5 point font. Don't answer the problems in the margins on the homework set given to you. Its ok to use several sheets. It can be on unmarked, lined, or graph paper. Please use multiple colors if you think it gets the point across. I can't begin to tell you how important this is.
- 3. Write your name and SID on every sheet in the upper right corner of the front sheet and in the middle of the top of the other sheets. Homework sets have been known to 'disperse' during grading. Unidentified homeworks will be tacked to my 'Board of Shame' outside of my office.

- 4. The name that you write on your homework/test/final/scantron must be the one listed on MyOleMiss. Do not use nicknames.
- 5. Assume that your grader is not psychic and an idiot. Write in orderly columns. Explain your steps. Don't write all of the problems on one page. 'And then a miracle occurred.' is never a good thing to write down before you give your answer.
- 6. Avoid writing things in the upper left hand corner of the front page or upper right hand corner of the back page. We don't like having to pry apart your homework to see if the answer is hidden in the corner.
- 7. Box your answers. Clearly label your answers.
- 8. Photograph/scan your homework before you turn them in. We receive an insane amount of homework every week. Stuff gets misplaced. Or lost. Or stolen. Homework sets 4, 7, 10 and 11 will not be graded and returned to you before the test. A photo of the homework, along with evidence that it was created before the deadline, makes my life so much easier when fixing grades.
- 9. The use of a colored cover sheet really makes it easier for you to find your homework when its in a pile of 300 homework sets.

Teaching Philosophy and Class Expectations

After teaching over 2000 students, I've come to this:

- 1. More often than not, your high school education was horrible. Your high school physics teacher, if you had one at all, was horrible too. And your college algebra/trig teacher was pretty bad. I accept this. Lets wipe the slate clean. We'll fix it.
- 2. Effectively communicating the material is as important as knowing the content.
- 3. I encourage my students to correct my mistakes in class. Sometimes, they are intentional. Other times, they are not. Be prepared to not only point out the mistake but provide a correction.
- 4. I will convince you that physics is necessary for everyone, including nonphysics majors. It teaches you problem solving skills and other techniques used in other classes.
- 5. This class places a higher value in doing things 'generally' more than getting a specific number. We will be using the 'alphabet soup' method rather than the 'plug and chug' method.
- 6. If you don't understand anything in class, please let me know right away. If you are confused about something, I'm sure there are 100 students who are just as confused as you.
- 7. Good students can answer any question given to them. Better students, in addition to answering any question given to them, can make their own questions and then answer those.
- 8. I know you follow the UM Creed and understand its meaning of 'academic honesty.' But steps have been taken by my graders, my TA's, my lab physicists, and me to make sure that this is true. Over the semester, we will discuss study habits and writing techniques that, if followed, will ensure that the grade listed on your transcript for Physics 214 was earned.
- 9. There is so much more. These lessons will come later.