

Physics 170, Spring 2014, Course Syllabus

Instructor: Dr. Matthew M. Waite, Merion Science Center 133, ext: 2573, mwaite@wcupa.edu

The best way to contact me is via e-mail. But, be aware that I will only read and respond to e-mails written in proper English, with **correct grammar, spelling, and etiquette**. Do not send me any e-mails addressed to "hey" written in text-speak like you're talking to your BFF about meeting up at Barnaby's tonight... Now, don't get me wrong, I might meet up for happy hour, but I won't answer any questions about class or homework!

Class Meeting: MWF 11:00-11:50 am, R 2-3 pm (Recitation)

Office Hours: MWF 1:00-2:30 pm, Tu 10:30 am - 12:00 noon, or by appointment

Course Web Page: D2L

WileyPLUS: <http://edugen.wileyplus.com/edugen/class/cls376315/>

Course information can be found here throughout the semester. D2L should be your first access point, but there are occasionally some links and/or resources that it is more convenient to upload on the "courses.wcupa.edu" server and I will use another website. A link to that site is posted on D2L. The syllabus, homework problem solutions, and other interesting links and resources can be found here. Check it regularly!!

Course Goals: Our goals are to explore, analyze, and investigate the world around us and to gain a better understanding of how and why various physical phenomena occur. In our study of these physical phenomena, we aim to use our mathematical tools to aid us in gaining not only a qualitative conceptual perspective, but to provide a quantitative applied understanding as well.

As we strive to achieve these course goals, we will, in turn, achieve a number of the more basic goals of the general education curriculum at West Chester University, including the:

1. Ability to communicate effectively
2. Ability to employ quantitative concepts and mathematical methods
3. Ability to think critically and analytically

It should be noted that the pace of this course moves fairly quickly. If you note the schedule at the back of this syllabus, you will see that we cover approximately one chapter per week. The curriculum of this course is determined in such a manner that you should leave this course with a broad knowledge of a variety of physical phenomena, and a better understanding of how to view and approach physical problems. This is the reason most of you have been required by your majors to take this class. It is expected by the powers that be in your majors that we cover all of these topics and that you are exposed to all of these topics by the time you finish this course. Thus, this quick pace is necessary in order to cover the required course material and topics within the space of one semester. It is in your best interest to keep up to speed by reading the sections in the text indicated in the schedule before you get to class. In fact,

there might even be a short quiz at the beginning of some classes to see if you have been keeping up with your reading.

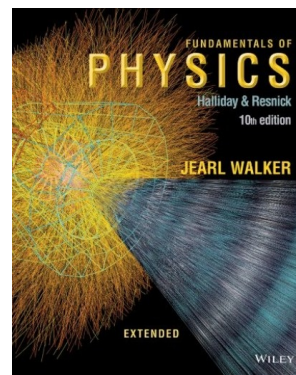
Text: Fundamentals of Physics, (10th Ed.) by Halliday, Resnick & Walker, (John Wiley & Sons, Hoboken, NJ, 2013) Vol. 1 (Ch 1-20). ISBN : 978-1-118-23376-4 (With WileyPLUS)

If you wish to only use an online version of the textbook, you can click on the WileyPLUS link above and register online. Your WileyPLUS account comes with an online eTextbook. But, you will always need internet access to get it... (there is no offline option.)

This textbook is also available as an eTextbook at Coursesmart.com. Cut/paste the ISBN into the search box: ISBN-13: 978-1-118-54787-8

Grading:

Item	% of Grade
3 Exams (4 and drop lowest)	45% (15% each)
Cumulative Final	20%
Homework	15%
Laboratory	20%



Attendance:

You are expected to attend every class period. I will take attendance for security as well as a means to assess who is serious about doing well in this class. If you regularly miss class I will take that to mean that you don't really care if you pass or fail.

Excused absences are limited to University-Sanctioned Events (which follow the Excused Absence Policy for University-Sanctioned Events as described in the West Chester University Undergraduate Catalog), and absences due to serious illness or injury (verified by a practicing MD, you must provide me with a phone number), or the death of family members (also to be verified.)

Cell phones and texting are NOT ALLOWED during class. Cell phone use is disruptive to your classmates and to your instructors. Please turn off your phones or put them on **silence**, tuck them away in your bookbag, purse or European carry-all, and forget about them until after class. If I see anyone texting, twitting, snap-chatting or otherwise using their cell phones during class, **I will take 5 points off of the nearest exam grade** (that's 5 full points out of 100), and you will be considered "absent" for that day, since you are obviously not mentally present.

Exams:

There will be four exams over the course of the semester. The first will be given after completion of chapters 1-4. The second will be given after completion of chapters 5-8. The

third will be given after completion of chapters 9-12. And the fourth will be given after completion of chapters 13-16. I will drop your lowest exam grade. These exams will cover primarily the material from the stated chapters, but they will be somewhat cumulative in the sense that the entire course builds upon itself as we proceed. The final exam will be cumulative. **I do NOT give make-up exams.** Should you miss an exam, it will be considered your dropped exam, should you miss more than one exam, one will be dropped and the other will be recorded as a zero. There are **NO exceptions to this policy.**

Homework:

Homework assignments will be complete using the online WileyPLUS course supplement. A link to this site is on D2L and the webpage listed at the beginning of this syllabus. Homework assignments are due by 8:00 pm on the due date. At 8:00 pm, the site will no longer accept homework submissions. I cannot change this. So PLEASE don't ask for an extension. As much as I want to grant it (and I really do most times, really, honestly, not kidding you) I simply cannot change the WileyPLUS program to allow it! I will, however, drop the lowest homework grade. So, if you miss one assignment, or even two, it's not going to affect your grade drastically. But, note that homework amounts to 15% of your total grade, as much as any single exam. Even if you get 100% on all exams, labs and the final... **you cannot get an A without doing your homework assignments!** They are considered part of the course, and exams are written and administered with the understanding that you have worked on the homework assignments.

Disability:

We at West Chester University wish to make accommodations for persons with disabilities. Please make your needs known by contacting the Office of Services for Students with Disabilities at ext. 3217 and me at the above listed contact information. Sufficient notice is needed in order to make the accommodations possible. The University and I desire to comply with the ADA of 1990.

Laboratory:

Most weeks you will have a lab session. These sessions will be held on Tuesdays from either 9:30-11:25, 1-2:55 or 3-4:55. You are to purchase a lab manual with all the lab assignments from Dynamic Bookstore. The allotted laboratory time is only 2 hours, therefore, it is your responsibility to prepare for the lab session by reading the instructions **BEFORE lab each week.** At the end of the semester, your lab instructor will give your lab grades to me and I will record exactly what she provides. All lab issues are to be discussed with her.

Miscellaneous:

Please make any restroom visits before the class starts, or wait until it ends, the class is only 50 minutes. It is distracting to both the instructor as well as your fellow students when someone gets up and walks out of the classroom during lecture. Only in very rare circumstances will permanent physical damage be done by waiting a few more minutes for class to end... In fact, many doctors claim that waiting up to 2-3 hours is no problem (except for a bit of discomfort) at all. So, if I go off on a tangent and babble on and on for 2-3 hours, I'll let you get up and take a break... promise.

University Policies:

For questions regarding Academic Dishonesty, the No-Grade Policy, Sexual Harassment, or the Student Code of Conduct, students are encouraged to refer to their major department's handbook, the Undergraduate Course Catalogue, the Rams Eye View, or the University Web Site. Please understand that improper conduct in any of these areas will not be tolerated and may result in immediate ejection from the class.

Schedule: (This schedule is tentative, I will try to follow it as closely as possible!)

Month	Day	Date	Reading	Topic	Lab (Tuesday)	Hmwk
Jan.	Th	23	Ch. 1	Introduction & Measurements		
	F	24	Ch. 3	Vectors		
	M	27	Ch. 3 & 2	Vectors & Motion in 1-D	Motion & Acceleration	(1)
	W	29	Ch. 2	Motion in 1-D		
	F	31	Ch. 4	Motion in 2-D & 3-D		
Feb.	M	3	Ch. 4	Motion in 2-D & 3-D	Free-Fall	(3), (2)
	W	5	Ch. 5	Forces & Motion I		
	F	7	Ch. 5	Forces & Motion I		
	M	10	Ch. 6	Forces & Motion II	No Lab	(4)
	W	12	EXAM I	Chapters 1-4		
	F	14	Ch. 6	Forces & Motion II		
	M	17	Ch. 7	KE & Work	Projectile Motion	(5), (6)
	W	19	Ch. 7	KE & Work		
	F	21	Ch. 7	KE & Work		
	M	24	Ch. 8	PE & Conservation	Inclined Plane	(7)
	W	26	Ch. 8	PE & Conservation		
	F	28	Ch. 9	Center of Mass & Momentum		
Mar.	M	3	Ch. 9	Center of Mass & Momentum	No Lab	(8)
	W	5	EXAM II	Chapters 5-8		
	F	7	Ch. 9	Momentum & Collisions		
	M	10	Ch. 10	Rotation	Conservation of Momentum	(9)
	W	12	Ch. 10	Rotation		
	F	14	Ch. 11	Torque & Angular Momentum		
	M	17	Spring Break	We Ain't Got No Class!		
	W	19	Spring Break	We Ain't Got No Class!		
	F	21	Spring Break	We Ain't Got No Class!		
	M	24	Ch. 11-12	Torque, Ang. Mom. & Equilibrium	Equilibrium	
	W	26	Ch. 12	Equilibrium		(10), (11)
	F	28	Ch. 13	Gravitation		
	M	31	Ch. 13	Gravitation	No Lab	
Apr.	W	2	Ch. 14	Fluids		
	F	4	Ch. 14	Fluids		(12), (13)
	M	7	EXAM III	Chapters 9-13	Archimede's Principle	
	W	9	Ch. 15	Oscillations		
	F	11	Ch. 15	Oscillations		
	M	14	Ch. 16	Waves I	Spring-Mass Oscillator	(14)
	W	16	Ch. 16	Waves I		
	F	18	Ch. 16-17	Waves I & II		
	M	21	Ch. 17	Waves II	Standing Waves	(15)
	W	23	Ch. 18	Temp. Heat & 1st Law		
	F	25	Ch. 18-19	1st Law & Kinetic Theory		

Updated: Friday, January 24, 2014

Month	Day	Date	Reading	Topic	Lab (Tuesday)	Hmwk
	M	28	Ch. 19	Kinetic Theory	Lab Final	(16), (17)
	W	30	EXAM IV	Chapters 14-17		
May	F	2	Ch. 20	Entropy & 2nd Law		
	M	5	All of it!!	Semester Review		(18), (19)