

PHY200(G)- General Physics I
University of Tampa
Fall Term 2019
Syllabus

Instructor: Prof. Simon Schuler
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Class Meetings: MWF 1:00 - 2:10 pm
GHS 628

Text: College Physics– Putting It All Together (Hellings, Adams, & Francis; University Science Books)
MasteringPhysics
*a scientific calculator will also be needed

Office Hours: T 10:00 am - 12:00 pm
R 10:00 am - 12:00 pm
*Meetings can also be arranged by appointment

Course Description

Physics is the most fundamental of all sciences. Physics is the science that attempts to explain how the Universe and everything in it works. It is the study of matter and its motion, energy, and forces. Its scope ranges from the subatomic to the Universe as a whole. PHY 200 is the first of a two semester sequence in General Physics, a non-calculus based course intended for most CNHS majors. The second semester, PHY 201, will be offered in the Spring 2020 term. PHY 200 and 201 together are an exploration of the foundations of classical physics- Mechanics, Thermodynamics, Electromagnetism, and Optics. In PHY 200 this term, we will cover:

- Kinematics– the motion of objects in one and two dimensions; vectors
- Dynamics– forces; Newtons laws of motion; circular motion; rotational motion
- Conservation Laws– work; conservation of energy; conservation of momentum
- Fluids– properties of fluids; fluid dynamics
- Oscillations and Waves– simple harmonic motion; traveling and standing waves

***Solid math skills are essential for this course.** Mathematics is the language of physics, and we will be using it extensively throughout the course. Remember that MAT 170 (Precalculus) is a prerequisite for this course. If you are not comfortable working with quadratic equations, exponents, logarithms, trigonometry, and geometry, you will struggle in this class. Refer to the PHY 200 Math Review, which is available on Blackboard, for a summary of some of basic mathematical concepts we will be using.

The structure of the course will consist primarily of lectures and problem solving in class. The lectures will supplement the assigned readings and are not meant as a regurgitation of the material in the text. All material covered in class is fair game for the Midterm and Final Exams. Despite being a lecture course, you will not be a passive participant in the class; there will be in-class discussions and group exercises. Class participation is encouraged and expected; your participation in class activities will be factored into your final grade! Accordingly, **COMPLETING THE ASSIGNED READING FOR EACH CLASS IS OF VITAL IMPORTANCE!** There will be a Reading Quiz (12 in total!) covering each chapter in the text that we will study to provide the extra motivation you may need to complete the readings.

Learning Objectives

At the end of this course, you will have gained:

- 1) a basic understanding of the physical laws and principles governing motion, forces, energy, fluids, and waves.
- 2) an improved proficiency in problem solving using algebra and trigonometry.
- 3) an ability to communicate an understanding of fundamental physics and problem solving strategies.

Grading

Your grade for the course will be based on your performance on Labs, Reading Quizzes, Homework Assignments, Midterm Exams, and a Final Exam.

Labs– you should be enrolled in one of the PHY 200L lab sections! Labs are taught separately from the lectures, but they are not independent of them. Your lab grade is incorporated into your final grade for this PHY 200 lecture course.

Reading Quizzes (RQ)– there will be 12 short reading quizzes throughout the term. RQs will cover the material in the assigned readings for each chapter in the text and will be due (usually) one hour before the start of class (this gives me time to review the quizzes and determine if there is any topic areas that need more attention in class). RQs will be administered on the MasteringPhysics course website.

Homework (HW)– there will be 12 homework assignments, one for each chapter we cover. The best way to learn physics is by doing problem sets, so **expect to be doing a lot of problems throughout the semester**. Homework assignments will include solving quantitative problems using **pencil** and paper, as well as online homework on the MasteringPhysics course website that will consist of both quantitative and qualitative (i.e., conceptual) problems. The homeworks will be due generally at the beginning of class. Please note, **no written homeworks will be accepted via email**.

Midterm Exams– there will be three in-class midterm exams. The exams will consist of quantitative problems similar to homework problems.

Final Exam– there will be a **COMPREHENSIVE** final exam at the end of the term. The structure of the final exam will be similar to that of the midterms. **Everyone is required to take the final exam**. The final for this course is scheduled for **Monday, December 9 at 1:30 - 3:30 pm**.

*The midterm and final exams will be weighted equally.

***Beyond Your Control/Horrible Day Policy**– unforeseen and sometimes unfortunate things happen to all of us. Events such as sickness, family emergencies, flaky alarm clocks, computer crashes, lost text books, traffic jams, etc. can affect our performance on any given day, assignment, or task. Therefore, I will consider your lowest scores on **1 HW, 1 RQ, and 1 Midterm Exam** are due to events out of your control and will drop them from consideration when determining your final grade. I encourage you to use this policy wisely and not squander your dropped scores. The policy is meant to cover those events that are truly unforeseen (they do happen!) and not negligence due to laziness or apathy. Because of this policy, **NO LATE or MAKE-UP HWs OR EXAMS ARE ALLOWED**¹.

¹Exceptions to the No Late or Make-up assignments rule will be made if a HW or Exam is missed due to a University-defined excused absence, which generally involves medical issues, court-imposed legal obligations, participation in University-sanctioned events, religious holidays, or military service. Arrangements to make up the missed work are the responsibility of the student. Please see the Student Catalog for a full description of the Student Attendance policy.

Your final grade will be computed from the averages of your individual Labs, RQs, HWs, and Exams with the following weights:

RQs	5%	
HWs	10%	
Labs	15%	(lab score will be provided by your lab instructor)
Exams	70%	

Final grades will be assigned according to the scale:

90 – 100%	A	80 – 87.9%	B	72 – 77.9%	C	63 – 69.9%	D
88 – 89.9%	AB	78 – 79.9%	BC	70 – 71.9%	CD	< 63%	F

Academic Integrity

Academic dishonesty (cheating, plagiarism, fabrication, and academic misconduct) is not tolerated at any level by me or the University. It is the students responsibility to become familiar with the policies of the University regarding academic integrity and to avoid violating such policies. Policy information can be found at <http://ut.smartcatalogiq.com/en/current/catalog/Academic-Policies-and-Procedures/Academic-Integrity-Policy>.

All Homework assignments, reading quizzes, and Exams are to be done independently by each student. While I encourage you to study together, talk with each other about what we are learning in class, and work together on homework sets, any work turned in for grading must be completed solely by you. Any student found violating the Academic Integrity Policy (e.g., cheating on an exam, copying another student's homework or a solution found online on tutoring websites such as Chegg or other sources, etc.) will **fail the course (receive a letter grade of "F") without exception**. An Academic Integrity Violation Form will also be submitted to the Office of the Associate Provost which may take additional action, including possible expulsion.

Attendance

Although I expect you to attend every class meeting, I do not take attendance in class. That means you do not have to come to class if you do not want to come. However, missing class is not free from consequences. **You are responsible for any and all material covered**, and any and all announcements made during each class, whether you are here or not. Remember, any material covered in class is fair game for the exams, and not all material covered in class appears in the text. Furthermore, routinely missing class will adversely affect the class participation component of your grade.

General Classroom Policy

In order to ensure an environment that is conducive to learning, all electronic devices such as cell phones, smart watches, iPods, iPads, tablets, etc. should be turned off during class. **PLEASE DO NO TEXT DURING CLASS!** Texting during class is inconsiderate to me and to your fellow students, and it is disruptive. Using any of these electronic devices during class will adversely affect the class participation component of your grade. Using computers during class is also not permitted unless you have proper documentation for its use from the Academic Success Center (please see below).

Reporting Sexual Violence / Title IX Matters

Sexual violence includes nonconsensual sexual contact and nonconsensual sexual intercourse (which is any type of sexual contact without your explicit consent, including rape), dating violence, sexual harassment, sexual exploitation, domestic violence, and stalking. You may reach out for confidential help (see contact info below) or report an incident for investigation.

If you choose to write or speak about an incident of sexual violence and disclose that this violence occurred while you were a UT student, the instructor is obligated to report the incident to the Title IX Deputy Coordinator for Students. The purpose of this report is to provide a safe and nondiscriminatory environment for all students. The Deputy Coordinator or his or her designee will contact you to let you know about the resources, accommodations, and support services at UT and possibilities for holding the perpetrator accountable. If you do not want the Title IX Coordinator notified, instead of disclosing this information to your instructor, you can speak confidentially with the individuals listed below. They can connect you with support services and discuss options for holding the perpetrator accountable.

There is an exception to this required reporting for preventative education programs and public awareness events or forums. While the instructor is not required to report disclosures during these instances, unless you make or initiate a complaint, during these programs or events, the instructor or another University official will ensure that the students are aware of the available resources at UT, such as counseling, health, and mental health services, and it will provide information about Title IX, how to file a Title IX complaint, how to make a confidential report, and the procedure for reporting sexual violence.

For more information, see The University of Tampa Title IX resources at <http://www.ut.edu/uploadedFiles/Academics/Provost/Title%20IX.pdf> and <https://www.ut.edu/studentconduct/titleix/>.

To make a confidential report of sexual violence, please contact:

- The Victims Advocacy Hotline:(813) 257-3900
- Dickey Health & Wellness Center (wellness@ut.edu)813.257.1877
- Health and Counseling Center (healthcenter@ut.edu)813.253.6250

Class Disruption Policy

Every student has the right to a comfortable learning environment where the open and honest exchange of ideas may freely occur. Each student is expected to do his or her part to ensure that the classroom (and anywhere else the class may meet) remains conducive to learning. This includes respectful and courteous treatment of all in the classroom. According to the terms of the University of Tampa Disruption Policy, the professor will take immediate action when inappropriate behavior occurs.

Campus Closure Statement due to Adverse Conditions

In case of any adverse condition or situation which could interrupt the schedule of classes, each student is asked to access www.ut.edu for information about the status of the campus and class meetings. In addition, please refer to ut.blackboard.edu for announcements and other important information. You are responsible for accessing this information.

Students with Disabilities

If there is any student who has special needs because of a disability, please go directly to the Academic Success Center in North Walker Hall to report your needs and provide documentation of your disability. You may also phone 813.257.5757 or email disability.services@ut.edu for assistance. Please feel free to discuss this issue with me, in private, if you need more information.

Tentative Class Schedule

This is a general outline of the chapters in the text that we will be covering in class and on what dates. Tentative dates for the Midterm Exams and the Final Exam are also provided. This is a tentative schedule (except for the Final Exam). We may deviate from this schedule at any time.

Week	Monday	Wednesday	Friday
1 Aug 26/28/30	Ch. 1– Class Introduction	Ch. 2: 1-D Kinematics	Ch. 2: 1-D Kinematics
2 Sep 2/4/6	No Class- Labor Day	Ch. 2: 1-D Kinematics (RQ1)	Ch. 3: Vectors (RQ2, HW1)
3 Sep 9/11/13	Ch. 3: Vectors	Ch. 4: 2-D Kinematics (RQ3, HW2)	Ch. 4: 2-D Kinematics
4 Sep 16/18/20	Ch. 4: 2-D Kinematics	Midterm Exam 1 Chs. 2-4 (HW3- 09/17)	Ch. 5: Newton’s Laws (RQ4)
5 Sep 23/25/27	Ch. 5: Newton’s Laws	Ch. 5: Newton’s Laws	Ch. 6: Forces (RQ5, HW4)
6 Sep 30/ Oct 2/4	Ch. 6: Forces	Ch. 6: Forces	Ch. 7: Energy (RQ6, HW5)
7 Oct 7/9/11	Ch. 7: Energy	Ch. 7: Energy	Ch. 7: Energy
8 Oct 14/16/18	Ch. 7: Energy	Ch. 8: Momentum (RQ7, HW6)	Ch. 8: Momentum
9 Oct 21/23/25	Ch. 8: Momentum	Midterm Exam 2 Chs. 5-8 (HW7- 10/22)	Ch. 9: Rotational Dynamics (RQ8)
10 Oct 28/30/Nov 1	Ch. 9: Rotational Dynamics	Ch. 9: Rotational Dynamics	Ch. 9: Rotational Dynamics
11 Nov 4/6/8	Ch. 9: Rotational Dynamics	Ch. 9: Rotational Dynamics	Ch. 10: Pressure & Fluids (RQ9, HW8)
12 Nov 11/13/15	Ch. 10: Pressure & Fluids	Ch. 10: Pressure & Fluids	Ch. 11: Simple Harmonic Motion (RQ10, HW9)
13 Nov 18/20/22	Ch. 11: Simple Harmonic Motion	Ch. 11: Simple Harmonic Motion	Ch. 11: Simple Harmonic Motion
14 Nov 25/27/29	Midterm Exam 3 Chs. 9-11 (HW10- 11/24)	No Class Thanksgiving Holiday	No Class Thanksgiving Holiday
15 Dec 2/4/6	Ch. 12: Pulses and Waves (RQ11)	Ch. 13: Standing Waves (RQ12, HW11)	Ch. 13: Standing Waves
Finals Week Dec 9/11/13	Final Exam (Dec 9) 1:30 - 3:30pm (HW12- 12/08)		

Dates of Interest Sep 1– last day to drop/add course with 100% tuition credit
 Sep 13– last day to withdraw with 50% tuition credit
 Nov 4– last day to withdraw

Note: Labs start the second week of class, on Tuesday, Sep 3.