General Physics I - PHYS 215

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Office: LSF L103H, (843) 661-1445
Class Meeting Time: MWF 9:30 - 10:20 AM LSF L102
Office Hours: M/T/TH/F 11 - 12, 2 - 3, or by appointment.

Required Materials

College Physics from OpenStax, Print ISBN 978-1-50669-809-0, Digital ISBN 978-1-947172-01-2, https://openstax.org/details/books/college-physics (free pdf)
ExpertTA: Use link http://goeta.link/USM42SC-FD5648-2HY. Cost is $32.50/semester

Rule 0.

No one is born knowing how to do physics. If you are struggling, please speak with me (and/or accept my help when offered). If you are concerned that you "don't have what it takes," please speak with me so that I can tell you that ***that is not a real thing***.

Learning Goals

By the end of this course, the student will be able to

- Apply physical reasoning to describe and predict the motion of objects
- Convert a physical scenario into a problem that can be solved (and then solve it)
- Extrapolate from fundamental principles and think critically about the physical world
- Gain an appreciation of how science investigates and reveals the natural world

ADA Statement

If you have a disability that qualifies you for academic accommodations, I am happy to accommodate you. The Office of Counseling and Testing will provide me with a letter listing your needs, but please come talk to me about how we can implement them in the context of this class. More information can be found in the Student handbook.

Academic Integrity

All work must be the sole product of each student's brain and effort (in other words, all cheating or plagiarism will be reported and handled as detailed in the Student Handbook). For my part, I will not discriminate against any student for any reason and will make any reasonable accommodations necessary to meet a student's needs. No discriminatory or hostile behavior toward fellow students will be tolerated. If you experience or witness discriminatory, abusive, or other unwanted behavior, you should contact me, the Title IX Coordinator, and/or the Vice President of Student Affairs, as appropriate.

Tentative Schedule (subject to change)

1. Units and Measurement
2. Linear Motion
3. Vectors
4. Motion in Higher Dimensions
   Exam 1
5. Newton's Laws
6. Newton's Laws, applied
7. Universal Gravitation
   Exam 2
8. Work and Kinetic Energy
9. Potential Energy, Conservation of Energy
10. Linear Momentum
    Exam 3
11. Rotational Motion and Torque
12. Angular Momentum
13. Static Equilibrium
    Final Exam (cumulative, emphasis on topics not covered in Exams 1-3)

Evaluation

The final grade will be broken down in the following way

- Grade from Lab Course: 20%
- Participation: 5%
- Homework: 10%
- Exam 1: 15%
- Exam 2: 15%
- Exam 3: 15%
- Final Exam: 20%

Attendance of all sessions is expected and will be factored into Participation, but **do not come to class if you are sick** (COVID or otherwise). Absences need not be documented, **but all students are responsible for all material covered and all assignments regardless of attendance.** If you are ill (COVID or otherwise) or quarantining I will work with you to help you keep up with the course and make up work as needed. In order to do this I need to know ASAP (after deadlines have passed does not qualify as ASAP). Please be aware that you are not obligated to inform me of a positive COVID-19 test or diagnosis, but if you do so I am expected to pass that information along to the University (which you should do anyway).
Homework will generally be assigned at the beginning of each week and will be due the first class period of the following week. Homework is graded for correctness, but you will be given multiple attempts to get the correct answer. I will review all Homework grades to ensure that ExpertTA hasn't messed up.