Syllabus for Physics 116 Online
Summer
Professor Jeff Steele

Course: General Physics II

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Text: Required: Fundamentals of Physics, 9ed (ninth edition), by Halliday, Resnick, and Walker; please note that you can also get the extended version or you can get the shortened version. The text also comes in two parts, but you need both parts for 115 and 116. You may find this book on the College bookstore website, or probably cheaper on Amazon, much cheaper if used. You may use an electronic version. Required: In addition, you need the ExpertTA homework service. This is purchased by semester, so you will need to pay for it this spring in order to do homework.
Registration Link: http://goeta.link/USA48VA-3D65B6-1U6
Optional: Study Guide

Course Comments: This course is the second half of an calculus based comprehensive survey of basic physics. This course covers topics in mechanics (gravitation, equilibrium, fluids), electricity and magnetism (the study of forces, fields, circuits, and waves), and optics (electromagnetic waves, light) at a level appropriate for beginning physics majors, pre-medical students and science majors. We will cover approximately three chapters every week or a bit more. The goal of this course is to train your physical intuition, to give you a basic understanding of electricity and magnetism in the world around us, and to teach you the tools needed for effective problem-solving.
Course Schedule

Week 1: Chapter 12 - Equilibrium

Chapter 13 - Gravitation

Chapter 21 - Electric Charge

Week 2: Chapter 22 - Electric Field

Chapter 23 - Gauss’ Law
Exam 1 assigned

Chapter 24 - Electric Potential

Week 3: Chapter 25 - Capacitance
Exam 1 due

Chapter 26 - Current & Resistance

Chapter 27 - Circuits

Week 4: Chapter 28 - Magnetic Fields

Chapter 29 - Magnetic Fields Due to Currents

Chapter 30 - Induction
Exam 2

Week 5 Chapter 31 - Electromagnetism & AC

Additional Topics

Exam Review
Final Exam
Course Lecture
Direct lectures will be done via pre-recorded video lecture, from the professor (not outside sources). Videos will include the presentation of the concepts and example problems solved.

Office hours
Office hours are live face to face, scheduled for Sundays and Wednesdays from 7-8 PM EDT. A schedule is posted, and may be modified based on the needs and schedules of the students and professor. Office hours may be requested outside of the regularly announced times. Please feel free to try any time, including evenings and weekends, to make an appointment.

As you see by the schedule, the class will move quickly, approximately three chapters per week. There will be one homework assignment due for each chapter. Homework is generally due one week after being assigned, except where noted on the syllabus. Part of the homework must be done by Friday as explained elsewhere.

- **Tests** will cover 4-5 chapters, and there will be two during the semester. Tests are untimed, paper/pencil (upload a scanned copy to Moodle to submit), and you will have a 72 hour window during which to download, work on, and submit.
- **Quizzes** will be offered as an opportunity to improve any low test scores.
- The final is comprehensive, with a larger emphasis on materials from Chapters 28-32 (material covered after exam 2)

Grading
Grading will be determined as follows:
- Homework: 30%
- Exam 1: 20%
- Exam 2: 20%
- Final Exam: 30%

If you do the regular homework assignments, then it is worth 30% of your grade. The more additional homework you do, the more the homework counts, and the less the exams count. If you get all the extra homework points, it is worth 40% of your grade (an additional 10%) and the weight of the exams goes down 10%. If you get half the extra homework points, homework will count as 35% of your grade and the weight of the exams goes down 5% equivalently, etc.

Honor Code and Responsibility
Take responsibility for your work and yourself. You are expected to complete all homeworks and exams by the policies outlined for the assignments, on time. Honor is of utmost importance in the academic atmosphere and is taken very seriously by me. I encourage people to work together on homework and labs, but the finished product must be your own work. I would encourage anyone to come to me with a problem that has kept you from doing your work, so that we can work something out, rather than just taking a zero, or worse yet, cheating and possibly failing the class. I will feel free to give you freedom, but then the conduct of the Honor System instituted at Randolph College is in the hands of the students.
Accommodations for Students with Disabilities
Students with disabilities needing accommodations in summer online classes at Randolph College may send any requests for accommodations and accompanying documentation to accessibility@randolphcollege.edu.

Students enrolled at other colleges or universities may submit current letters of accommodation from their home school. Students who are not currently receiving accommodations and would like to inquire about receiving them in summer online classes at Randolph College can send any pertinent documentation or inquiries to the Coordinator of Disability Services at the email address listed above.

Communication
I plan on using Moodle to communicate. Homework assignments and solutions, exam hints and solutions, schedule changes and guidelines (such as those listed here) will all be on the web so that you can access them anytime, and even print them out if you would like.

Link to Zoom (Office Hours): https://zoom.us/j/4122028428

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