

University of Maryland - Department of Physics
Fall 2024 Physics 122 – Secs. 0401 & SEF1

Title: Fundamentals of Physics II

Testudo Description: A continuation of PHYS121, which together with it, generally satisfies the minimum requirement of medical and dental schools. Phys 122 covers waves, electricity and magnetism, optics, and modern physics.

Instructor: Prof. Carter Hall, e-mail: crhall@umd.edu; Office is PSC 2114.

Contacting me: Send email to crhall@umd.edu with a subject line beginning with “PHYS122”. You can also message me on ELMS, but email is much more likely to get my attention.

TA: Zhaochong Han, hancz@umd.edu.

Office Hours:

- Thursday 1 - 3 pm in Physical Science Complex 2114.
- Please let me know if you would like to meet with me over zoom. My zoom link is umd.zoom.us/my/carterhall
- You can also schedule an appointment with me via email (subject line: “PHYS122”), or schedule with me in-person before or after class.

Schedule:

Lecture: MW 6:00 pm to 7:15 pm in Toll 1201.

Discussion (both sections): W 7:30 pm to 8:20 pm in Toll 1219.

Lab (both sections): M 7:30 pm to 9:20 pm in Toll 3314

Recommended Text: “College Physics: A Strategic Approach” by Knight, Jones, and Field, published by Pearson. I will use the 3rd edition. Any other edition of this book or any other general physics book is acceptable.

Labs: You will complete ten labs. See the attached lab schedule. Please direct questions concerning the labs to the TA. If the TA is not able to help you, then I will be happy to try to answer your question.

ELMS/Canvas: Course information will be posted on ELMS/Canvas.

ExpertTA: You will need to purchase **two** ExpertTA access keys; one for labs, and one for homework.

- *Labs:*
 - Section 0401: <http://goeta.link/USH22MD-07E794-2SE>
 - Section SEF1: <http://goeta.link/USH22MD-57C22E-2SC>
- *Homework:*
 - From the Canvas page for Phys 122, click on ‘Assignments’, then ‘HW1’.
 - You will be prompted to pay the one-time fee for ExpertTA homework.
 - When completing the homework assignment each week, always access the assignment from Canvas. Do not login directly to ExpertTA. If you login directly your grade will not be synchronized to Canvas.

Homework policies: Homework is due each week at 11:59 pm on Thursday night. There will be eleven required homework assignments and a twelfth optional homework. Each of the eleven required assignments are worth an equal amount. No late homework or make-up homework will be accepted, except by prior arrangement with a valid excuse, or in other exceptional cases (such as a medical emergency) in accordance with university policy. No homework grades will be dropped.

Homework deadline extensions: You may request 24-hour extensions on two homework assignments. The request must be made via email. You must send the request before the original homework deadline.

Class Participation: There will be class participation credit. Each class will be worth 1 point. The denominator for calculating the final credit will be 20. 100% is the maximum credit available. Class participation

credit will be granted through Canvas. No make-up credit is available for class participation.

Exams:

- We will have three in-class mid-term exams and one final exam. The final exam time and place will be announced.
- Calculator: You will need a hand-held calculator with trigonometric functions for the exams. Make sure that your calculator is working. You will not be allowed to use a phone, computer, or tablet. The calculator cannot have any wifi or cellular technology.
- You will be given a formula sheet for use on the exams. The formula sheet will be posted to Canvas before the exam.
- Among the three mid-term exams, the lowest score will be dropped. This means that your third mid-term could be considered optional if you are satisfied with the grades on your first two mid-terms.
- I will not substitute the final exam grade for a mid-term exam grade.

Make-up exams: If you have a valid excuse for missing an exam, you must notify me and receive permission for a make-up exam. This must be done at least one day before the exam day. You must schedule a make-up exam for the following week.

Discussion Section Quiz: Each discussion section will end with a short quiz

Credit and grading scale: Homework: 20%. Labs: 20% total. Class participation: 5%. Discussion Quiz: 10%. Mid-term exams: 30% total (15% each). Final exam: 15%.

Grading Scale: A ten-point grading scale will be used to assign final letter grades, with the “-“ and “+” grades reserved for the lowest three and highest three points in each bracket. For example, 87.0% to 89.99% will be a B+, 83.0% to 86.99% will be a B, and 80.0% to 82.99% will be a B-.

Academic Integrity.

Concerning collaboration and group work, you are permitted to meet in-person with other Phys 122 students to discuss the homework, but you are not allowed to directly copy anyone’s homework. You must complete and submit each homework assignment on your own.

You are not allowed to use any online discussion boards, messaging tools, or AI algorithms or chatbots for help on the homework assignments, unless the instructor has granted permission.

All university policies regarding student rights and obligations, including academic integrity (cheating), are available at: <http://www.ugst.umd.edu/courserelatedpolicies.html>.

SPS tutoring. The Society of Physics Students (SPS) offers free walk-in physics tutoring (no appointment necessary) Monday through Thursday from 4 to 6 pm in Toll 1204.