

University of Maryland - Department of Physics

Physics 410 Spring 2020 Prof. Carter Hall

Title: *PHYS 410 Classical Mechanics*. Theoretical foundations of mechanics with extensive application of the methods. Various mathematical tools of theoretical physics. (4 credits)

Prerequisites: *PHYS373 Math Methods for Physics II*.

Instructor: Prof. Carter Hall, Office: Physical Sciences Complex 2114, Phone: x5-6103, email: crhall@umd.edu.

TA: Srilekha Gandhari, Office: 2221 John S. Toll Physics Building, Phone: x5-5969, email: gandhari@umd.edu.

Office hours: My office hours will be Thursdays from 2 to 4 pm, and by appointment. You are welcome to drop in without an appointment.

Schedule: 3 meetings weekly:

T, Th: 11 am - 12:15 pm (PHYS Rm. 1204) and
F: 10 am - 10:50 am (PHYS Rm. 1204)

Text: *Classical Mechanics*, John R. Taylor, University Science Books, (2005) ISBN: 9781891389221

Website: <http://www.physics.umd.edu/courses/Phys410/Hall-Spring-2020/>. Instructor lecture notes will be posted here.

Homework: There will be a total of 12 homework assignments. Assignments will be posted on the course website each Friday, and will usually be collected in class the following Friday. Homework #1 is due Tuesday Feb. 4th and Homework #6 is due Thursday March 12th. No homework will be due during exam weeks. Policies:

- Homework will not be accepted electronically.

- At the instructor's discretion, late homework may not be accepted.
- If you use a computer and you have trouble printing your results, you may sketch your results by hand. *Printer failure will not be accepted as an excuse for late homework.*

Use of laptop computers and other devices during class is discouraged. If you need to use a device during class, please come see me.

Exams: There will be two mid-term exams and a final exam. The mid-term exams will be held in class on Tuesday February 18th and Tuesday March 31st. The final exam will be held on Thursday May 14th from 8:00-10:00 am in PHYS 1204.

Credit: Midterm exams 1 and 2 are worth 20% each, homework is worth 30%, and the final exam is worth 30%. Each homework assignment has equal weight.

ELMS: Homework and exam grades will be posted on <https://www.elms.umd.edu/>. **CAUTION:** ELMS does not correctly weight your homework and exam grades. The total percentage appearing on ELMS usually over-estimates the result from the syllabus formula. To calculate your percentage you must do it by hand following the syllabus recipe given above.

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% to 89% will be a B+, 83% to 87% will be a B, and 80% to 83% will be a B-.

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