

calcPhysics I-1310 Syllabus Fall 2023

Meets T Th 10:30-11:45a Instructor: (Mr., Dr., Professor) Clifton Murray

UNM-Valencia

Professor's Help Hours: MW 1:30-3:15p; T 4:15-5:15p; W 1:30-3:15p, 5:15-5:45p; Th 11:45a-12:15p, 4:15p-5:45p, and by appointment

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Pre- or Co-requisite: Math 1512 (Calculus I), Grade of C or higher

Credit Hours: Three. Expect to spend at least 6 hours of out-of-class work on homework and study.

Necessary Equipment:

-Text: Halliday & Resnick's Fundamentals of Physics Extended 10th ed., by Jearl Walker

-Calculator, Scientific (trig functions, log, powers of ten capable), An actual calculator, not a phone app (cell phones not allowed on tests.)

Course Learning Objectives: By the end of the course, the student should be able to correctly explain the concepts of, and solve problems involving, at least the following: 1) units of physical measure; 2) linear motion: position, velocity, and acceleration; 3) basic vector math; 4) force, types of forces, and the concept of net force; 5) Newton's 1st, 2nd, & 3rd laws of motion; 6) free-fall motion; 7) two-dimensional projectile motion; 8) mechanical energy: kinetic, gravitational potential, and elastic; 9) rotational motion; 10) translational and rotational equilibrium situations; 11) centripetal force and acceleration; 12) torque and its effect on rotation; 13) simple harmonic motion; 14) wave motion, 15) physics of sound.

Academic Dishonesty as defined in the UNM-VC catalog includes copying work from other students. Any student found doing this on tests is subject to disciplinary action, ranging from "a reduced or failing grade for the work in question and/or the course" to "dismissal from the University" <http://pathfinders.um.edu/campus-policies/academic-dishonesty.html>

Disruptive Behavior is any behavior which interferes with other students' learning or the instructor's ability to guide that learning. Examples include loud talking/ laughing/chatting with your buddy which require repeated warnings from the instructor, or derisive/ridiculing comments toward well-meaning students or the instructor—this is a good way to get expelled from the class. Keep your motives constructive, and it'll be a good educational experience.

Disabilities (UNM-VC): Should you have a documented disability requiring special accommodations, contact UNM-Valencia Campus Student Services, 505-925-8560 <https://valencia.unm.edu/students/student-services.html>

Any *Sexual Misconduct* or Gender Discrimination brought to the instructor's attention must be reported by the instructor to UNM's Office of Equal Opportunity and Title IX Coordinator. For information regarding what comprises sexual misconduct, see <http://policy.unm.edu/university-policies/2000/2740.html>

Homework: Due on Review Days, before class starts. Turn in by chapter; do not run chapters together; do not split chapters. Make the

Main problem #s **Big**—e.g. **5, 9, 23**. Separate problems that are on same sheet of paper with either whitespace or a bold separation line.

Homework late, in by next class day: -50%. Late more than next class day: -100%.

Attendance: Expected. After 4 accumulated absences, the student may be dropped from the course without notice. If you have a work or other unavoidable conflict, you should talk to the professor, to decide whether an alternative policy that allows you to miss more should apply, or whether you should drop and take the course at another time.

Makeup Work: Tests: There are no makeup tests, except in genuine emergencies—in such cases, expect a max score 80%. (Early tests, however, might be arranged without penalty.) If you skip a test, the highest grade you can receive for the course is an A-

Homework (again) 1 day late, -50%; 2 days late, -100%.

Prof. Murray's UNM-Valencia Physics 1310 syll, contin...

Grade weighting:

		Max possible points	
Homework		100	
4 tests		400	
Drop lowest test		-100	
Final exam (not dropped, comprehensive, min score 70% to pass course)		<u>150</u>	
		550	max poss course total
$536 \leq x \leq 550$	A+ (unless a test is missed, or homework score is less than 50%)		
$509 \leq x < 536$	A (unless a test is missed)		
$495 \leq x < 509$	A-		
$481 \leq x < 495$	B+		
$454 \leq x < 481$	B		
$440 \leq x < 454$	B-		
$426 \leq x < 440$	C+		
$399 \leq x < 426$	C		
$385 \leq x < 399$	C-*		
$330 \leq x < 385$	D		
$x < 330$	F		

*There may be courses and/or degree requirements which will not accept a C- as adequate for Physics 1310. For example, a C- does not qualify a student to enroll in Physics 1320

Finally, a positive note: Tutoring in Physics is available, free, from UNM Valencia Campus Tutoring Services. at the STEM Center, 505-925-8515 or <https://valencia.unm.edu/campus-resources/learning-commons/index.html>