

Pre- or Co-requisite: Math 162 (Calculus I)

Useful Materials:

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

Calculator: A scientific graphing calculator will often be useful—arithmetic, scientific notation, trig/inv trig functions, exponents, logs, and occasional graphing. Calculators may be used on tests, although all solutions requiring calculations must show those calculations, clearly and in detail, on paper—merely writing down a result from a calculator (other than arithmetic), without giving the full reasoning &/or mathematics behind it, will result in reduced or zero credit.

Course Learning Objectives: By the end of the course, the student should be able to correctly explain and solve problems involving at least the following: 1) units of physical measure; 2) linear motion: position, velocity, and acceleration; 3) basic vector arithmetic; 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, including 15) sound.

Academic Dishonesty as defined in the UNM-Valencia 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”.

Disruptive Behavior is any behavior which interferes with other student's learning or the instructor's ability to help that learning. Examples include loud talking/ laughing/chatting with your buddy which require repeated warnings from the instructor, or derisive/ridiculing comments directed 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. Cellphones Off during class—if you must use cellphone for personal communication, please leave the classroom. No cellphone calls or texts during tests—during tests, if you leave classroom, you must leave phone with the Professor.

Children in Class (UNM-V) Children are not permitted in class. This is regrettable, but it is due to liability concerns.

Disabilities (UNM-V): Should you have a documented disability requiring special accommodations, please bring the instructor documentation from Equal Access Services, so appropriate accommodations can be made. If you feel you need such documentation, contact Jeanne Lujan, coordinator for Equal Access Services, 505-925-8910 or jmlujan@unm.edu.

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>

Electronic Communications Devices, incl laptops, cellphones and such: Must be Off at all times during class.

No text messaging during class; if you must text message, do it outside the classroom. No txt msg during tests, in or out of classroom.

Homework: Due on Test Days, before the test. Turn in stapled by chapter. Pencil ok. Clearly separate the Main probs—e.g. 5, 9, 23...make the **Main** #'s (NOT sub-#'s, like subpart a, b, c) **BIG**, and separate probs with whitespace or a separation line. Again, make the **MAIN** problem #'s **BIG**, and/or offset to the left of margin.

Attendance: Required. After 4 accumulated absences, the student may be dropped from the course without notice.

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 or miss a test, you cannot receive an A+ or A for the course.**

Homework : 1 day late, -50%; 2 days late, -100%.

Grade weighting:

		Max possible points	
Homework		100	
4 tests		400	
Drop lowest one of tests or homework:		-100	
Final exam (not dropped, comprehensive, min score 65% to pass course)		<u>150</u>	
		550	max poss course total
$532 \leq x \leq 550$	A+ (unless a test is missed, or homework score is less than 50%).		
$512 \leq x < 532$	A (unless a test is missed)		
$495 \leq x < 512$	A-		
$477 \leq x < 495$	B+		
$457 \leq x < 477$	B		
$440 \leq x < 457$	B-		
$422 \leq x < 440$	C+		
$402 \leq x < 422$	C		
$385 \leq x < 402$	C-		
$330 \leq x < 385$	D		
$0 \leq x < 330$	F		

TURN HWK IN BY CHAPTER.
DUE ON TEST DAY AT START OF TEST.

CLIFFORD MURPHY
UNM-VALLEN

TUESDAY

THURSDAY

21 AUG CH 1 UNITS, AV. SPEED, VELOCITY HWK PROBS #1, 7, 9, 23	23 AUG CH 2 CONTIN, ACCELERATION, HWK #30a, 31, 33, 45, 47, 49, 53 START CH 3, VECTORS?
CH 2 MORE MOTION Q, Q4, PROBS #1, 3, 19	30 AUG CONTIN CH 4 CIRCULAR MOTION, RELATIVE MOTION. #59, 62, 70
28 AUG CH 3 #1, 3, 9, 11a, b, 37, 41, 65a, b, START CH 4 PROJECTILE MOTION #3, 13, 23, 25, 37	6 SEP CH 1, 2, 3, 4 HWK DUE AT START. STAPLE BY CHAPTER
4 SEP REVIEW FOR TEST	TEST # 1
11 SEP CH 5 NEWTON'S LAWS OF FORCES #1, 3, 5, 13, 17, 19, 29, 33, 35, 51	13 SEP CH 6 MORE FORCES: FRICTION & CENTRIFUGAL NET. #4, 7, 11, 18, 39, 43, 51
18 SEP CH 7 WORK, ENERGY, & POWER #2, 3, 5, 9, 13, 17, 18, 27, 36, 41, 45, 49	20 SEP CH 8 MORE ABOUT ENERGY #1, 2, 3, 9, 15, 34, 43, 47
25 SEP CH 9 MOMENTUM, CENTER OF MASS. #1, 12, 19, 25, 39, 47, 49, 61, 79	27 SEP RVW FOR TEST
2 OCT HWK CH 5, 6, 7, 8, 9 DUE IN BY CHAPTER BEFORE TEST	4 OCT CH 10 ROTATION #1, 4, 11, 13, 33, 37, 39, 48, 50, 61
TEST # 2	11 OCT FALL BREAK ~ NO CLASS
9 OCT CH 11 MORE ROTATION #3, 5, 7, 25, 27, 45, 46, 70	18 OCT FINISH EQUILIBRIUM. CH 13 GRAVITATION #3, 9, 19
16 OCT FINISH ROTATION. CH 12 EQUILIBRIUM (INTRO STATICS) #2, 5, 11, 17, 67	25 OCT CH 13 CONTIN GRAVITY & ASTROPHYSICS #51, 56, 72
23 OCT CH 13 GRAVITATION CONTIN: #32, 50	1 NOV CH 10, 11, 12, 13 HWK DUE AT START
30 OCT RVW	TEST # 3
6 NOV CH 14 BASIC PHYSICS OF FLUIDS #3, 5, 13, 33	8 NOV CH 14 FLUIDS CONTIN #41, 52, 59, 73 START CH 15 PERIODIC MOTION
13 NOV CH 15 PERIODIC MOTION #3, 5, 9, 13, 29, 43, 45, 59, 63	15 NOV CH 16 MECHANICAL WAVES #3, 5, 19, 29, 43, 48
20 NOV CH 17 SOUND #3, 7, 11, 29, 41, 51, 56, 57, 59a, 69, 92	22 NOV THANKSGIVING ~ NO CLASS
27 NOV RVW	29 NOV CH 14, 15, 16, 17 HWK DUE NOW.
4 DEC RVW FOR FINAL	TEST # 4
11 DEC	6 DEC RVW FOR FINAL
	13 DEC