

Instructor's office 126A. MW 3:15-4:15p, T 4:15-5:30p, Th 11:45a-12:15p, F 1:15-2:30, 4:15-5:15p. [wcmurray@unm.edu](mailto:wcmurray@unm.edu), 505- 925-8727

*Pre- or Co-requisite:* Math 1512 (Calculus I)

*Useful Materials:*

Text: Halliday & Resnick's Fundamentals of Physics 10<sup>th</sup> ed., Extended, 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 1<sup>st</sup>, 2<sup>nd</sup>, & 3<sup>rd</sup> 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-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”.

*Disruptive Behavior* is any behavior which interferes with other student's 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 the quickest way to being expelled from the class. Keep your motives constructive, and it'll be a good educational experience.

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

*Disabilities (UNM-VC):* Should you have a documented disability requiring special accommodations, please bring the instructor documentation from Equal Access Services, so appropriate accommodations can be made.

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:* Turn in homework at start of each test day, By Chapter—that means all of ch 1 together, then all of ch 2 together, then all of ch 3...etc. Do not staple different chapters together.

...PhycI(calc) Syllabus Contin...

*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 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
<b>Final exam</b> (not dropped, comprehensive, <b>min score 65% to pass course</b> )	<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

\*Note that a C- does not meet the minimum grade of "C" required for calc-based Physics II.

\*\*No incomplete ("I") grades will be given.

TURN IN HWK BY CHAPTER  
AT START OF TEST

FALL 2019

CLIFTON MURRAY  
JNM-VALENCIA  
10:30-11:45 a

T PHYSICS I/1310 TH

20 AUG CH 1 UNITS, AN SPEED, AN VELOCITY HWK PROBS #1, 7, 9, 23 CH 2 MORE MOTION QUES 1, QUES 2, PROBS #1, 3, 19	22 AUG CH 2 CONTIN ACCELERATION #30a, 31, 33, 47, 49, 53
27 AUG CH 3 VECTORS #1, 3, 9, 11a, 37, 41, 65a	29 AUG CH 4 PROJECTILE MOTION, CIRCULAR MOTION, RELATIVE MOTION #3, 13, 23, 25, 37, 59, 62, 70
3 SEP RVW	5 SEP STAPLE CH 1, 2, 3, 4 SEPARATELY DUE BEFORE TEST TEST #1
10 SEP CH 5 NEWTONS FORCE LAWS #1, 3, 5, 13, 17, 19, 29, 33, 35, 51	12 SEP CH 6 MORE FORCES: FRICTION, CENTRIPETAL + NET #4, 7, 11, 18, 39, 43, 51
17 SEP CH 7 WORK, ENERGY, & POWER #2, 3, 5, 9, 13, 17, 18, 27, 36, 41, 45, 49	19 SEP CH 8 MORE ENERGY #1, 3, 15, 34, 43, 47
24 SEP CH 9 MOMENTUM #1, 12, 19, 25, 39, 47, 49, 61, 79	26 SEP RVW
1 OCT HWK CH 5, 6, 7, 8, 9. SEPARATELY DUE, START OF CLASS TEST #2	3 OCT CH 10 INTRO TO ROTATION PHYSICS #1, 4, 11, 13, 33, 37, 39, 48, 50, 61
8 OCT CH 11 FURTHER ROTATION #3, 5, 7, 25, 27, 45, 46, 70	18 OCT FALL BREAK
15 OCT FINISH ROTATION. CH 12 EQUILIBRIUM OF FORCES {INTRO STATICS} #2, 5, 11, 17, 67	17 OCT FINISH EQUILIBRIUM. CH 13 GRAVITATION. #3, 9, 19
22 OCT CH 13 GRAVITATION, CONTIN #32, 50	24 OCT CH 13 GRAVITY & ASTROPHYSICS #51, 56, 72
29 OCT RVW	31 OCT HWK CH 10; 11, 12, 13 SEPARATELY DUE AT START OF TEST. TEST #3
5 NOV CH 14 BASIC FLUID PHENOMENA. #3, 5, 13, 33	7 NOV CH 14 FLUIDS CONTIN #41, 52, 59, 73 START CH 15 PERIODIC MOTION
12 NOV CH 15 PERIODIC MOTION #3, 5, 9, 13, 29, 43, 45, 59, 63	14 NOV CH 16 MECHANICAL WAVES, & SOUND #3, 5, 19, 29, 43, 48
19 NOV CH 17 SOUND WAVES #3, 7, 11, 29, 41, 51, 56, 57, 59a, 69, 92	21 NOV RVW
26 NOV YEP--CH 14, 15, 16, 17 ALL DUE BY TEST. TEST #4	28 NOV THANKSGIVING
3 DEC RVW FOR FINAL	5 DEC RVW FOR FINAL
10 DEC	12 DEC FINAL 10:30a-12:30p EXAM