

**THE UNIVERSITY OF TEXAS AT EL PASO
COLLEGE OF SCIENCE
DEPARTMENT OF PHYSICS**

Course #:	PHYS 2420 CRN 31725												
Course Title:	Introductory Mechanics												
Credit Hrs:	4.0												
Term:	Summer 2015												
Course Meetings & Location:	MTWRF 9:20 – 11:30 AM., UGLC room 342												
Prerequisite Courses:	-												
Course Fee: (if applicable)	-												
Instructor:	Dr. Felicia Manciu												
Office Location:	PSCI 221B												
Contact Info:	Phone # : (915) 747 8472												
	E-mail address: fsmanciu@utep.edu												
	Fax #: (915) 747 5447												
	Emergency Contact: (915) 747 5715												
Office Hrs:	Monday, Wednesday 12:00 – 1:00 PM												
Textbook(s), Materials:	Main textbook: <i>University Physics with Modern Physics</i> by Hugh D. Young and Roger A. Freedman (13 th Edition).												
Course Objectives (Learning Outcomes):	<p>The objective of PHYS 2420, which is the first part of a sequence of two calculus-based introductory physics courses, is to provide students with a rigorous description of physical phenomena and to improve students' problem-solving abilities.</p> <p>We will study the following topics: Units, Physical Quantities, Vectors, One- and Two-Dimensional Kinematics, Forces, Newton's Laws of Motion, Work and Energy, Potential Energy and Conservative Forces, Energy Conservation, Linear Momentum and Collisions, Rotational Kinematics, Rotational Dynamics, Mechanical Equilibrium, Elasticity and Oscillations.</p>												
Grading Policy:	<p>Grades in this course will be based on your scores on two midterm exams, a final exam (comprehensive; but with emphasis on the last part of the course), laboratory, and homework assignments.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>Midterm exams:</td> <td>40%</td> <td>(20% each)</td> </tr> <tr> <td>Final exam:</td> <td>25%</td> <td>(comprehensive)</td> </tr> <tr> <td>Laboratory</td> <td colspan="2">15%</td> </tr> <tr> <td>Homework:</td> <td colspan="2">20%</td> </tr> </table>	Midterm exams:	40%	(20% each)	Final exam:	25%	(comprehensive)	Laboratory	15%		Homework:	20%	
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IRA AY03-04: REQUEST FOR RECOGNITION

<p>Course Activities/Assignments:</p>	<p>Homework</p> <p>It is essential that students become well versed in problem solving methods, which means developing the writing skills to set up a problem, including diagrams and mathematical manipulation to achieve the final answer. A numerical score will be assigned for each homework set based on graded and counted problems.</p> <p>Feel free to form study groups with your classmates and seek help from me and TAs during his or her office hours as you attempt to solve the problems. Make sure that you understand the solutions and write them up yourself. <u>There is a strong correlation between homework scores and exam scores!</u></p> <p><u>The textbook is bundled together with the online Mastering Physics (http://masteringphysics.com) resource registration package.</u></p> <p style="text-align: center;"><u>REGISTER FOR ONLINE HOMEWORK USING THE COURSE ID MPMANCIU06088</u></p> <p><u>EACH STUDENT WILL NEED HIS OWN REGISTRATION PACKAGE FOR THE HOMEWORK.</u></p> <p>The online homework will be announced in advance in the lecture (approximately every week). Each will consist of few problems based on the course material.</p> <p>Exams</p> <p>Exams will consist of problems very similar to the worked example problems in the text and the assigned homework problems. Exams will be strictly closed-book. You should bring with you a pocket calculator to work out the answers to numerical problems: make sure the battery is charged!</p> <p>No cell phones allowed in the exams!</p> <p>The best way to prepare for the exams is to study the example problems and work out the assigned homework problems regularly. You should work as many additional problems from the text as you can: this is the best way to ensure your understanding of the material.</p>
<p>Make-up Policy:</p>	<p>An extension of the due date for the homework as well as the make-up of missing exams will be granted only in extraordinary circumstances.</p>
<p>Attendance Policy:</p>	<p>No credit will be granted for just attending the class.</p>
<p>Academic Integrity Policy:</p>	<p>Please see: http://academics.utep.edu/Default.aspx?tabid=23785</p>
<p>Civility Statement:</p>	<ul style="list-style-type: none"> • Cell phones and pagers should be turned off during class time. • When absences occur, it is your responsibility to obtain handouts and notes from your peers. When possible you will complete the activities you have missed. • Academic integrity is to be practiced at all times.

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<p>Disability Statement:</p>	<p>If you have a disability and need classroom accommodations, please contact the Center for Accommodations and Support Services (CASS) at 747-5148, or by email to cass@utep.edu, or visit their office located in UTEP Union East Building, Room 106. For additional information, please visit the CASS website at www.sa.utep.edu/cass. The student is responsible for presenting to the instructor any accommodation letters and instructions.</p>
<p>Military Statement:</p>	<p>If you are a military student with the potential of being called to military service and/or training during the course of the semester, you are encouraged to contact the instructor at the beginning of the semester.</p>
<p>Course Content:</p>	<p><u>UNITS, PHYSICAL QUANTITIES, AND VECTORS</u></p> <p><u>MOTION ALONG A STRAIGHT LINE</u></p> <p><u>MOTION IN TWO OR THREE DIMENSIONS</u></p> <p><u>NEWTON's LAWS OF MOTION</u></p> <p><u>APPLYING NEWTON's LAWS</u></p> <p><u>WORK AND KINETIC ENERGY</u></p> <p><u>POTENTIAL ENERGY AND ENERGY CONSERVATION</u></p> <p><u>MOMENTUM, IMPULSE, AND COLLISIONS</u></p> <p><u>ROTATION OF RIGID BODIES</u></p> <p><u>DYNAMICS OF ROTATIONAL MOTION</u></p> <p><u>EQUILIBRIUM AND ELASTICITY</u></p>