Fall 2011

Course Number: **PHYS1301** **Course Title:** **College Physics I**

Course Description: Calculus-level physics sequence for students in pre-professional programs, biology, geology, or architecture who do not expect to do additional work in engineering or physics. Topics include elementary vector algebra, mechanics, heat, thermodynamics and sound.

Textbook Sears & Zemansky's College Physics, 9th Edition (2012), Hugh D. Young, Addison-Wesley / Pearson, ISBN-10: 0-321-73317-7

Credit Hours: 3
Lecture Hours: 3

Instructor: Kenny Irizarry, P.E., R.E.M

Office: 10am-12pm M/W, 1-2:30pm M/T, 1pm-4pm Thursday (R), SCIT 208

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Student Learning Outcomes:

The Texas Higher Education Coordinating Board adopted Exemplary Educational Objectives (EEOs) to establish a common knowledge thread through the courses taught within the Texas Core Curriculum. For PHYS1301 College Physics I, the Natural Sciences EEOs are integrated into the Student Learner Outcomes below:

- To understand and apply method and appropriate technology to the study of natural sciences.
- To recognize scientific and quantitative methods and the differences between these approaches and other methods of inquiry and to communicate findings, analyses, and interpretation both orally and in writing.
- To identify and recognize the differences among competing scientific theories.
- To demonstrate knowledge of the major issues and problems facing modern science, including issues that touch upon ethics, values, and public policies.
- To demonstrate knowledge of the interdependence of science and technology and their influence on, and contribution to, modern culture.

Educational objective:

Based on concrete observations, demonstrated of views by both arguments and experiments, students will relate an understanding and apply mechanics (solid and fluids) and thermo-dynamics to science and engineering.

COURSE SCHEDULE:

Chap.	Title	*Week*	*Exam Date**
0	Introduction to College Physics	*1*	
1	Models, Measurement, and Vectors	*2*	
2	Motion along a Straight Line	*2*	
3	Motion in a Plane	*3*	
4	Newton's Laws of Motion	*3*	
5	Application of Newton's Laws	*4*	
6	Circular Motion and Gravitation	*5*	
	Exam I	***6***	***9/29/11***
7	Work and Energy	*7*	
8	Momentum	*8*	
9	Rotational Motion	*9*	
10	Dynamics of Rotational Motion	*9*	
11	Elasticity and Periodic Motion	*10*	
12	Mechanical Waves and Sound	*10*	
	Exam II	***11***	***11/3/11***
13	Fluid Mechanics	*12*	
14	Temperature and Heat	*13*	
15	Thermal Properties of Matter	*14&15*	
16	The Second Law of Thermodynamics	*16*	
	Final Exam *(Final Exam Review – 12/13/11)*	***17***	***12/15/11***

*This calendar will be adjusted to the needs of the course. Changes will be based on the course progress. The in-class exam dates could be moved one or two days up or down. The Final Exam date is fixed and will not change.

EVALUATION:

Twelve Quizzes (10 Count)	**20%**
Two Midterm Tests	**50%**
Comprehensive Final	**30%**

GRADING SCALE: A = 90-100%, B = 80-89%, C = 70-79%, D = 60-69%, F = 0-59%

CLASS ATTENDANCE:

Class attendance is very important since many of the exam questions will be drawn from the class lectures, demonstrations, and discussions. Taking good class notes is essential. Reading the chapter prior to coming to class is also recommended.

A scientific calculator will be needed for this course and the corresponding lab class.
(The library will have some calculators available on a first-come, first-served basis.)

ACADEMIC INTEGRITY

Academic honesty is expected of students enrolled in this course. Cheating on examinations, unauthorized collaboration, falsification of research data, plagiarism, and undocumented use of materials from any source constitute academic dishonesty and may be grounds for a grade of 'F' in the course and/or disciplinary actions. For additional information, see the university catalog.

DISABILITY ACCOMMODATIONS

Students with disabilities may request reasonable accommodations through the A&M-Texarkana Disability Services Office by calling 903-223-3062.

STATEMENT ON EMAIL USAGE

Upon application to Texas A&M University-Texarkana an individual will be assigned an A&M-Texarkana email account. This email account will be used to deliver official university correspondence. Each individual is responsible for information sent and received via the university email account and is expected to check the official A&M-Texarkana email account on a frequent and consistent basis. Faculty and students are required to utilize the university email account when communicating about coursework.

UNIVERSITY DROP POLICY

To drop this course after the 12th class day, a student must complete the *Drop/Withdrawal Request Form*, located on the University website (http://tamut.edu/Registrar/droppingwithdrawing-from-classes.html) or obtained in the Registrar's Office. The student must submit the signed and completed form to the instructor of each course indicated on the form to be dropped for his/her signature. The signature is not an "approval" to drop, but rather confirmation that the student has discussed the drop/withdrawal with the faculty member. The form must be submitted to the Registrar's office for processing in person, email (Registrar@tamut.edu), mail (P. O. Box 5518, Texarkana, TX 75505) or fax (903-223-3140). Drop/withdraw forms missing any of the required information will not be accepted by the Registrar's Office for processing. It is the student's responsibility to ensure that the form is completed properly before submission. If a student stops participating in class (attending and submitting assignments) but does not complete and submit the drop/withdrawal form, a final grade based on work completed as outlined in the syllabus will be assigned.

The instructor reserves the right to make changes to this syllabus as necessary.