



**PRAIRIE VIEW A&M UNIVERSITY  
DEPARTMENT OF PHYSICS**

**PHYS-2513-P01: UNIVERSITY PHYSICS I  
CRN 20415  
COURSE SYLLABUS  
Spring-2010**

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**Professor:** Gary M. Erickson, Ph. D.

**Office:** NSCI-330G

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**Lecture Sessions:** Tuesday/Thursday 4:00 – 5:20 PM  
Room: NSCI-103

**Office Hours:** Monday/Wednesday 10 AM – Noon; 1 – 2 PM

**Text Book:** Physics for Scientists and Engineers, 3<sup>rd</sup> Edition by Giancoli  
(Prentice Hall)

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**COURSE DESCRIPTION:**

This is a calculus-based introductory course in general physics with topics primarily from mechanics, such as kinematics in one and two dimensions, Newton's laws of motion, work-energy, uniform circular motion, gravity, rotational kinematics and dynamics, simple harmonic motion, waves, and sound.

**COURSE OBJECTIVES:**

The objectives of this course are for students to develop a conceptual understanding of physics principles along with their reasoning and problem solving abilities.

## PERFORMANCE EVALUATION and GRADING:

- **Lectures:** Attendance of lectures is expected, and students are expected to arrive on time, stay for the entire class period, and actively participate. (See the University attendance policy below.) The lecture does not replace reading the materials. The lecture is intended to expand, explain, and offer a different perspective on the material in the textbook.
- **Homework:** Homework problems will be assigned on a timely basis. It is the responsibility of the student, individually or within a group, to complete each homework assignment by the due date. The instructor is available during office hours to assist students and tutors are provided by the Physics Department. It is essential that the student understands the solution to problems if he/she is to succeed in this course; failure to understand homework problems will likely result in a disastrous outcome on exams.
- **Exams:** Four unit exams and a final exam are scheduled. Only calculators and no other electronic equipment are permitted during the exams.
- **Grading:** Combined attendance and homeworks contribute 20%, the unit exams contribute 60%, and the final exam contributes 20% toward the final numerical grade. *Scores will not be curved.* Physics is challenging for most students, and a cumulative performance of 25% is required for a “D”, 40% for a “C”, 50% for a “B”, and 65% for an “A” as the potential final grade in the course.
- **Late Homework or Missed Tests:** Late homework will be penalized at the rate of 15% per calendar day. This penalty may be waived only for a valid emergency. A unit exam may be excused or made-up at the instructor’s discretion and only in the case that the student has a valid excuse. Please, inform the instructor in advance of a test or exam if there is a valid schedule conflict. In the event that an emergency occurs that causes a test or exam to be missed, it is expected that the student provide written evidence and schedule a make-up test or exam for as soon as possible following the emergency.

## GRADE OF “I”:

A grade of “I” may be given in cases of documented emergencies or tragedies that prohibit a student from completing a course. In order to receive a grade of “I”, approval must be granted by the Department Head and College Dean prior to the final examination time.

## Supplementary Material and Help:

1. Tutorial sessions are available in room NSCI-324 through the Physics Department for individual problem discussions.
2. Additional reference textbooks are **Physics for Scientists and Engineers, 6<sup>th</sup> Edition**, by Serway and Jewett, ISBN: 0-534-40842-7 and **Principles of Physics: A Calculus-Based Text, 4<sup>th</sup> Edition**, by Serway and Jewett, ISBN: 0-534-49143-X (Thomson-Brooks/Cole)

**ATTENDANCE POLICY:**

Prairie View A&M University requires regular class attendance. Excessive absences will result in lowered grades. Excessive absenteeism, whether excused or unexcused, may result in a student's course grade being reduced or in assignment of a grade of "F." Absences are accumulated beginning with the first day of class.

**STUDENT ACADEMIC APPEALS PROCESS:**

Authority and responsibility for assigning grades rests with the faculty. However, in those instances where students believe that miscommunication, errors, or unfairness of any kind may have adversely affected the instructor's assessment of their academic performance, the student has a right to appeal by the procedure listed in the Undergraduate Catalog and by doing so within thirty days of receiving the grade or experiencing any other problematic academic event that prompted the complaint.

**ADA STATEMENT:**

Students with disabilities who believe they may need an adjustment in this class are encouraged to contact the Office of Disabilities Services at (936) 857-2693/2694 as soon as possible. Once you receive a letter of adjustment from the office, kindly make an appointment with me to discuss appropriate adjustments for this class.

**CHEATING AND PLAGIARISM:**

Prairie View A&M University is dedicated to a high standard of academic integrity among its faculty and students. In becoming part of the Prairie View A&M academic community, students are responsible for honesty and independent effort. Disciplinary action will be taken against any student who alone or with others engages in any act of academic fraud or deceit.

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**COURSE SCHEDULE:**

The anticipated class schedule follows. This schedule may be modified as needed.

**Class Schedule – Univ. Phys. I – Spring 2010**  
**Phys 2513-001, TR 4:00–5:20 PM, Room 103**

(subject to change)

<u>Week of</u>	<u>Tuesday</u>	<u>Thursday</u>
January 19	Units, Dimension, Equations (Ch. 1)	Trig, Vectors (Ch. 3)
January 25	Assessment / Kinematics 1D (Ch. 2)	Kinematics 1D (Ch. 2)
February 1	Kinematics 2D (Ch. 3)	Kinematics 2D (Ch. 3)
February 8	Kinematics 2D (Ch. 3)	<b>Exam 1</b>
February 15	Newton's Laws, Forces (Ch. 4)	Newton's Laws, Forces (Ch. 4)
February 22	Equilibrium, Non-Equilibrium (Ch. 12)	Uniform Circular Motion (Ch. 5)
March 1	Gravitation (Ch. 6)	<b>Exam 2</b>
March 8	Work and Energy (Ch. 7)	Kinetic and Potential Energy (Ch. 8)
March 15	<b>Spring Break</b>	
March 22	Conservation of Energy	Impulse and Momentum (Ch. 9)
March 29	Collisions	<b>Exam 3</b>
April 5	Rotational Motion (Ch. 10)	Rotational Kinematics
April 12	Rigid Bodies, Center of Mass (Ch. 11)	Rotational Work and Energy
April 19	Torque and Angular Momentum	<b>Exam 4</b>
April 26	Simple Harmonic Motion (Ch. 14)	Waves (Ch. 15); Sound (Ch. 16)
May 3	<b>Review Day</b>	<b>Study Day</b>
May 10	<b>Final: Tuesday 5/11, 6:30 - 8:30 PM</b>	