

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

**PHYS-2513-002: UNIVERSITY PHYSICS I  
COURSE SYLLABUS  
Spring-2007**

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

**Office:** NSCI-330G

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**Lecture Sessions:** Tuesday/Thursday 9:30 – 10:50 AM  
Room: NSCI-101

**Office Hours:** Monday/Wednesday 3:00 – 4:00 PM  
Tuesday/Thursday 1:00 – 2:00 PM

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

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**COURSE DESCRIPTION:**

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 EVALUATIONS and GRADING:**

- **Lectures:** Attendance of lectures is expected, and students are encouraged to actively participate. (See the University attendance policy below.)
- **Homework:** Homework problems will be assigned from time to time. It is the responsibility of the student, individually or within a group, to complete each homework assignment by the due date. It is essential that the student understand the assigned problems if he/she is to succeed in this course; failure to understand homework problems will likely result in a disastrous outcome on exams.
- **Quizzes and Exams:** Three exams and a final exam are planned. Exams will last the class period and be graded on a 100-point scale. Each exam will cover the class material from the previous 3 weeks. The final exam will be comprehensive and graded on a 200-point scale. Ten-minute pop quizzes may be given at the end of any lecture based on previous lectures.
- **Grading:** Attendance, class participation, and quizzes will count like one exam. Homeworks will count like one exam. This course will be challenging, and a cumulative performance of 35% is required for a “D”, 50% for a “C”, 65% for a “B”, and 80% for an “A” as the final grade in the course.
- **Late Homework or Missed Exams:** Late homework will be penalized at the rate of 15% per calendar day. This penalty may be waived only for a valid emergency. An 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 an exam if there is a valid schedule conflict. In the event that an emergency occurs that causes an exam to be missed, it is expected that the student provide written evidence and schedule a make-up exam for as soon as possible following the emergency.

### **Tutoring:**

Tutors are available at the Coleman Library and in Room 324 in the Physics Department.

### **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.

## 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.

## COURSE SCHEDULE:

This schedule may be modified as needed. A more detailed class schedule will be available in class.

<b>Week (Starting on)</b>	<b>Topic</b>	<b>Comments</b>
1 (Jan. 15)	<b>Ch. 1:</b> Units, Dimensions; Kinematics (1D)	<b>No Class on Jan. 18</b>
2 (Jan. 22)	<b>Ch. 2:</b> Kinematics in One Dimension	
3 (Jan. 29)	<b>Ch. 3:</b> Kinematics in Two Dimensions	
4 (Feb. 5)	<b>Ch. 3:</b> Kinematics in Two Dimensions	<b>Exam 1 (Chpts. 1-3)</b>
5 (Feb. 12)	<b>Ch. 4:</b> Newton's Laws, Forces	
6 (Feb. 19)	<b>Ch. 12,5:</b> Equilibrium, Uniform Circular Motion	
7 (Feb. 26)	<b>Ch. 6:</b> Gravitation	<b>Exam 2 (Chpts. 4-6,12)</b>
8 (Mar. 5)	<b>Ch. 7,8:</b> Work and Energy	
9 (Mar. 12)	<b>Spring Break</b>	<b>No Classes</b>
10 (Mar. 19)	<b>Ch 8,9:</b> Energy , Impulse and Momentum	
11 (Mar. 26)	<b>Ch. 9:</b> Collisions	<b>Exam 3 (Chpts. 7-9)</b>
12 (Apr. 2)	<b>Ch. 10:</b> Rotational Motion	
13 (Apr. 9)	<b>Ch. 11:</b> Rotational Work and Energy	
14 (Apr. 16)	<b>Ch. 11:</b> Torque and Angular Momentum	<b>Exam 4 (Chpts. 10-11)</b>
15 (Apr. 23)	<b>Ch. 14-16:</b> SHM, Waves and Sound	
16 (Apr. 30)	<b>Review and Study Week</b>	
Tuesday May 8	<b>Final Exam (Comprehensive)</b>	<b>10:30 AM – 12:30 PM</b>