PRAIRIE VIEW A&M UNIVERSITY
DEPARTMENT OF PHYSICS

PHYS-2113-002: GENERAL PHYSICS I
CRN 10382
COURSE SYLLABUS
Fall-2008

Professor: Gary M. Erickson, Ph. D.

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Lecture Sessions: Monday/Wednesday/Friday 8:00 – 8:50 AM
Room: NSCI-122

Office Hours: Monday/Wednesday/Friday 9:00 – 10:50 AM

Text Book: Essentials of College Physics by Serway and Vuille (Thomson-Brooks/Cole)

COURSE DESCRIPTION:

An algebra-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, and simple harmonic motion.

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.) Credit will be given for attendance of lectures. However, if the student is more than 5 minutes late, the student will receive, at most, half credit for that lecture period.
- **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:** The course naturally divides into four units**:** kinematics, forces/equilibriums, energy/momentum, and rotational kinematics. At the completion of each unit, there will be a test and a representative problem to solve. In addition to the four unit tests and problems, there will be a comprehensive final exam.
- **Grading:** Each test comprises 10% of the final numerical grade. Homeworks and attendance each comprise 10% of the final numerical grade. The final exam counts for 20% of the final numerical grade. *Scores will not be curved*. Each of the four representative problems count for 5% of the final numerical grade and also have a pass/fail component. 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. While each of the representative problems contribute toward the final numerical grade, a pass/fail component also exists. After a final numerical grade is determined, *each* unit-problem failure can cause *a letter grade reduction* in the final grade for the course. A student will have at least two chances to pass each representative problem.
- **Late Homework or Missed Exams:** Late homework will be penalized at the rate of 15% per calender 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 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 exam for as soon as possible following the emergency, usually before the next class meeting.

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:

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

Class Schedule - Gen. Phys. I - Fall 2008

(subject to change)

Week of	Monday	Wednesday	Friday
August 25	Units, Dimension, Equations	Assessment	Scalars and Vectors
September 1	**Labor Day - No Class**	**Student Assembly**	Vectors
September 8	Position, Velocity, Acceleration	Kinematics 1D	Kinematics 2D
September 15	Kinematics 2D	Relative Motion	**Test 1**
September 22	**Problem Exam 1**	Newton's Laws	Forces
September 29	Forces	Equilibrium	Non-Equilibrium
October 6	Uniform Circular Motion	**Test 2**	**Problem Exam 1-2**
October 13	Work-Energy	Kinetic Energy	Potential Energy
October 20	Conservative vs. Non-Conservative Forces	Power	Impulse and Momentum
October 27	Collisions	Collisions	**Test 3**
November 3	**Problem Exam 2-3**	Rotational Motion	Rotational Kinematics
November 10	Rigid Bodies, Center of Mass	Forces, Torques	Rotational Work and Energy
November 17	Angular Momentum, Torque	Simple Harmonic Motion	Simple Harmonic Motion
November 24	**Test 4**	**Problem Exam 3-4**	**No Class - Thanksgiving**
December 1	**Review Day**	**Study Day**	
December 8	**Common Final - Monday 12/8, 4:00 - 6:00 PM**		