

PHYS 2523 – UNIVERSITY PHYSICS II

Fall Semester 2008

Section PHYS-2523-003, MWF 9:00 to 9:50 AM; New Science Building Room 301

Associate Professor	Dr. ORION CIFTJA	Office Hours	M. 10-12, 1-2; T. 11-2; W. 10-12; 1-2; F. 10-12, 1-2
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CATALOG DESCRIPTION: Semester credit hours: 3. A calculus-based introduction to general physics with topics to include electricity, magnetism and selected materials from heat, waves and optics.

TEXTBOOK: Physics for Scientists and Engineers, 3-rd (or most recent) edition, by Douglas C. Giancoli (Prentice Hall).

COURSE GOAL: This is a continuation of the calculus-based physics course (General Physics I). It is designed for students who plan to major or specialize in one of the areas of science, engineering, medicine, etc. Through this course, students will learn fundamental concepts in the fields of electricity and magnetism applicable to scientists and engineers. At least one year of physics is the minimum prerequisite for specialization in one of these fields.

COURSE OUTCOMES: Upon completion of this course, it is expected that the students will gain enough knowledge of the theory covered to apply it to the solution of a wide range of practical problems that involve physics. Hopefully this will help the students better understand the theory of operations of many instruments and devices that they will encounter as they become employed in the various fields mentioned earlier. In addition, it will help them solve new problems that they will possibly meet on their various fields of employment that require basic knowledge of physics.

COURSE POLICIES: This course uses the lecture format. Selected materials in each chapter will be covered in lecture. You should read the entire assigned chapter before class. The lecture will not replace reading the materials. The lecture will be to amplify and explain the materials in the textbook. Homework problems will be assigned during the entire semester for each chapter covered. It is expected that the student solves these problems prior to the next class meeting. Any student unable to solve a particular assigned problem should contact the professor. Pop quizzes may be given occasionally on covered materials. It is expected that you will need to spend at least two hours studying outside the class for each hour spent in class. That means you should plan to devote a minimum of six hours per week for this class.

PERFORMANCE EVALUATION AND GRADING: There are four exams in this class. The mid-term and final exams always are in-class exams to be taken at a prescribed time. Two exams are given during the first half of the semester and two more exams during the second half of the semester. Each exam is worth 20 points and a total of 80 points of your final grade. Makeup examinations will be given ONLY for a university-approved absence verified in writing. The remaining 20 points of your final grade will come from two homework assignments. Bonus points are available from up to four quizzes, classroom attendance and any special project(s) together, any or some of them chosen by the professor. Homework assignments must be turned in on their due dates. No late homework assignments will be accepted.

The grading system is as follows:

90 – 100	A
80 - 89	B
70 - 79	C
60 - 69	D
0 - 59	F

ORAL AND WRITTEN COMMUNICATIONS: Oral or written communications will be given through exams, homework, classroom discussions and use of optional web-based materials.

ATTENDANCE POLICY: Class will start and end at the prescribed times. Attendance at every class is expected and is each student's responsibility. Absence or tardiness may result in lowered grades. Excessive absenteeism, whether EXCUSED or UNEXCUSED, may result in a student's course grade being reduced or assignment of a grade of "F". Absences are accumulated beginning with the first day of class. The University Undergraduate Catalog provides more detailed information.

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 University 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 OUTLINE

Week (Starting on)	Topic	Note
1 (Aug. 25)	Ch. 21. Electric charges and fields	
2 (Sept. 1)	Ch. 22. Gauss law	
3 (Sept. 8)	Ch. 23. Electric potential	
4 (Sept. 15)	Ch. 24. Capacitance, dielectrics, electric energy storage	
5 (Sept. 22)	Exam #1 Ch. 25. Electric current and resistance	Exam #1
6 (Sept. 29)	Ch. 26. DC circuits	
7 (Oct. 6)	Ch. 27. Magnetism	
8 (Oct. 13)	Ch. 28. Sources of magnetic field	
9 (Oct. 20)	Exam #2 Ch. 29. Electromagnetic induction and Faraday's law	Exam #2
10 (Oct. 27)	Ch. 29. [Continuation]	
11 (Nov. 3)	Ch. 30. Inductance and Electromagnetic oscillations	
12 (Nov. 10)	Exam # 3 Selected Topics: Waves	Exam # 3
13 (Nov. 17)	Selected Topics: Optics	
14 (Nov. 24)	Selected Topics: Optics	
15 (Dec. 1)	Review , study, and final exam days	Final Exam

THIS SCHEDULE IS VARIABLE