PHYS 2523 – UNIVERSITY PHYSICS II (Spring 2010)

Instructor	**Dr. Fa-Chung Wang (P01, P03, P04)** **Dr. Kevin Storr (P02)**	**Office Hours**	Dr. Wang : T: 11-12:20 PM R: 2- 5PM
Office	E.E. O'Banion Science Building, suite 330	**E-mail**	fawang@pvamu.edu kastorr@pvamu.edu
Phone	936-261-3140	**Time & Place**	P01: TR 9:30 – 11 AM, Room 307 P02: MWF 10- 11 AM , Room A103 P03: TR 12:30 – 2 PM, Room A103 P04: TR 5:30 – 7 PM, Room 301

CATALOG DESCRIPTION:

Credit 3 semester hours. A calculus-based introduction to general physics with topics from electricity, magnetism and light. Specific topics include: electric force and fields, electric potential, electrical circuits, magnetic force and fields, electromagnetic induction, and selected topics from heat, waves and optics.

PREREQUISITE: MATH 1124; PHYS 2513

TEXTBOOK: Physics for Scientists & Engineers, 4th Ed., by Douglas C. Giancoli, 2008 (Prentice Hall)

COURSE GOAL: To learn fundamental concepts in the fields of electricity & magnetism applicable to engineers & scientists.

COURSE OUTCOMES: Upon completion of this course, students should be able to demonstrate:

- facility with the physics concepts in the field of mechanics as measured by problem solving on exams
- familiarity with scientific & quantitative methods of thinking
- ability to apply calculus in a real-world physical setting

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 & work some of the problems before class. The lecture will not replace reading the materials but to amplify and explain the materials in the textbook. Homework problems will be assigned during the entire semester for each chapter covered. Any student unable to solve a particular assigned problem(s) should participate in help sessions- recitation & tutorial. 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. This means you should plan to devote a minimum of nine hours per week for this class. You should also be currently enrolled in PHYS 2521 laboratory.

HOMEWORK AND GRADING:

There will be three regular examinations and a final. All examinations are closed book and the final may be comprehensive. The use of calculators is encouraged. Makeup examinations will be given ONLY for a university-approved absence verified in writing. The final exam will contribute to about 38% of your final grade, and the other three regular exams will combine contribute about 50%. The remaining about 12% will come from attendance, quizzes and classroom performance. Make-up Examination will be given only for a University-approved absence.

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 communication will be given through exams, classroom and individual discussion.

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 (2002 – 2003, p.41) provides more detailed information.

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.**

GRADING/CLASS RELATED APPEALS: Refer to Undergraduate Catalog, (2002-2003, p.39)

COURSE OUTLINE
(Schedule Subject to Change)

Week	Topic	Note
1 (Jan 19 – 22)	**Ch. 21: Electric Charge and Electric Field** **Ch. 22: Gauss's Law**	No class Jan 18, MLK Day Late Registration & Drop/Add Ends on Jan 22 for Undergrad. & on Jan 23 for Graduate Students
2 (Jan 25 – 29)	**Ch. 22:** (continued) **Ch. 23: Electric Potential**	Jan 27: General Student Assembly
3 (Feb 1 – 5)	**Ch. 23:** (continued) **Ch. 24: Capacitance, Dielectrics, Electrical Energy Storage**	Feb 3: Last day to withdraw from course w/o record
4 (Feb 8 – 12)	**Ch. 24:** (continued) **Ch. 25: Electric Currents and Resistance**	**Exam #1 (on Ch. 21-23)**
5 (Feb 15 – 19)	**Ch. 25:** (continued) **Ch. 26: DC Circuits**	
6 (Feb 22 – 26)	**Ch. 26:** (continued)	
7 (Mar 1 – 5)	**Ch. 27: Magnetism**	**Exam #2 (on Ch. 24–26)**
8 (Mar 8 – 12)	**Ch. 27:** (continued) **Ch. 28: Sources of Magnetic Field**	
9 (Mar 15 – 19)	**Spring Break**	**No Classes**
10 (Mar 22 – 26)	**Ch. 28:** (continued)	
11 (Mar 29 – Apr 1)	**Ch. 29: Electromagnetic Induction and Faraday's Law**	**Exam #3 (on Ch. 27–28)** **No Class on Apr 2 (Good Friday/Easter)**
12 (Apr 5 – 9)	**Ch. 30: Inductance and Electromagnetic Oscillations**	Apr 5:Last day to withdraw from course with "W"
13 (Apr 12 – 16)	**Selected Topics: Waves**	**Exam #4 (on Ch. 29–30)**
14 (Apr 19 – 23)	**Selected Topics: Optics**	
15 (Apr 26 – 30)	**Optics:** (continued)	

16 (May 3 – 7)	**Review Days—M & T. Study Days—W & R** Final Exams Start Friday, May 7	**Final Exam: See Final Exam Schedule**
17 (May 10 – 12)	**Final Exam Period Continued**	

University Rules and Procedures

Disability statement (See Student Handbook):
Students with disabilities, including learning disabilities, who wish to request accommodations in class, should register with the Services for Students with Disabilities (SSD) early in the semester so that appropriate arrangements may be made. In accordance with federal laws, a student requesting special accommodations must provide documentation of their disability to the SSD coordinator.

Academic misconduct (See Student Handbook):
You are expected to practice academic honesty in every aspect of this course and all other courses. Make sure you are familiar with your Student Handbook, especially the section on academic misconduct. Students who engage in academic misconduct are subject to university disciplinary procedures.

Forms of academic dishonesty:

1. Cheating: deception in which a student misrepresents that he/she has mastered information on an academic exercise that he/she has not mastered; giving or receiving aid unauthorized by the instructor on assignments or examinations.
2. Academic misconduct: tampering with grades or taking part in obtaining or distributing any part of a scheduled test.
3. Fabrication: use of invented information or falsified research.
4. Plagiarism: unacknowledged quotation and/or paraphrase of someone else's words, ideas, or data as one's own in work submitted for credit. Failure to identify information or essays from the Internet and submitting them as one's own work also constitutes plagiarism.

Nonacademic misconduct (See Student Handbook)
The university respects the rights of instructors to teach and students to learn. Maintenance of these rights requires campus conditions that do not impede their exercise. Campus behavior that interferes with either (1) the instructor's ability to conduct the class, (2) the inability of other students to profit from the instructional program, or (3) campus behavior that interferes with the rights of others will not be tolerated. An individual engaging in such disruptive behavior may be subject to disciplinary action. Such incidents will be adjudicated by the Dean of Students under nonacademic procedures.

Sexual misconduct (See Student Handbook):
Sexual harassment of students and employers at Prairie View A&M University is unacceptable and will not be tolerated. Any member of the university community violating this policy will be subject to disciplinary action.

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 to students 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.