

PHYS 2513 — UNIVERSITY PHYSICS I

Instructor	Dr. Orion Ciftja	Office Hours	MWF: 10 AM – 12:00
Office	New Sci. Bldg, 330F	e-mail	ogciftja@pvamu.edu
Phone	936-261- 3137	Time & Place	P02: MWF 9-9:50 AM, Room 104

CATALOG DESCRIPTION

Credit 3 semester hours. A calculus-based general physics for science and engineering students, with topics primarily from mechanics, such as kinematics in one and two dimensions, Newton's laws of motion, Newton's Universal Gravitational law, work-energy, uniform circular motion, gravity, rotational kinematics and dynamics, and simple harmonic motion.

PRE-REQUISITE: MATH 1124 (Calculus I);

TEXTBOOK: *University Physics with Modern Physics* by W. Bauer and G. D. Westfall 2011 (McGraw-Hill) or *Physics for Scientists & Engineers, 4th Ed.*, by Douglas C. Giancoli, 2008 (Prentice Hall) [optionally, in case this textbook was purchased during Spring or Fall 2011]

COURSE GOALS: To learn fundamental concepts in the field of mechanics applicable to engineers and 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 material in each reading assignment will be covered in lecture. You should read the entire assigned chapter and work some of the problems before class. The lecture will not replace reading the material—the lecture will be to amplify and explain the material in the textbook. Homework problems will be assigned for each chapter covered. Quizzes may be given occasionally on covered material. 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 nine hours per week for this class. You should also be currently enrolled in a PHYS 2511 Laboratory.

HOMEWORK AND GRADING:

There will be four examinations during the semester including a final exam. Examinations will consist of solving quantitative and/or qualitative physics problems. All examinations are closed book and the final exam may be comprehensive. The use of calculators is permitted and encouraged. 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 in total the exams contribute 80 points of your final grade. Makeup examinations are given **ONLY** for a university-approved absence verified in writing. The remaining 20 points of your final grade will come from two homework assignments. Upon the discretion of the Instructor, bonus points will be available from quizzes (no more than 20 points), from classroom attendance rolls (if applicable, no more than 10 points) and from special project(s) together, any or some of them chosen by the Instructor. Homework assignments should 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 communication will be exercised through exams, classroom and individual discussion, and use of e-mails.

Attendance Policy:

Classes will start at the prescribed time and will end at the prescribed time. Class attendance is each student's individual responsibility. Excessive absences or tardiness may 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. The University Undergraduate catalog (2002-2003, p.41) 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.

Grading/Class Related Appeals: Refer to Undergraduate Catalog, (2002-2003, p.39)

COURSE OUTLINE (Schedule Subject to Change)

Week (Starting on)	Topic	Note
1 (Jan 16)	Ch. 1: Overview	
2 (Jan 23)	Ch. 2: Motion in a straight line	
3 (Jan 30)	Ch. 3: Motion in Two and Three Dimensions:	
4 (Feb 6)	Ch. 4: Force	Exam #1 (on Ch. 1-3)
5 (Feb 13)	Ch. 5: Kinetic Energy, Work, and Power	
6 (Feb 20)	Ch. 6: Potential Energy and Energy Conservation	
7 (Feb 27)	Ch. 12: Gravitation	
8 (Mar 5)	Ch. 7: Momentum and Collisions	Exam #2 (on Ch. 4-6, 12)

9 (Mar 12)	Ch. 8: Systems of Particles and Extended Objects	
10 (Mar 19)	Ch. 9: Circular Motion	
11 (Mar 26)	Ch. 10: Rotation	
12 (Nov 14)	Ch. 11: Static Equilibrium	Exam #3 (on Ch. 7–10)
13 (Apr 2)	Ch. 14: Oscillations	
14 (Apr 9)	Ch 15: Waves	
15 (Apr 16)	Review Days—M & T. Study Days—W & R	
16 (Apr 23)	Final Exams Period	Final Exam: See Final Exam Schedule

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.

Technical Considerations for Online and Web-Assist Courses

Minimum Hardware and Software Requirements:

- Pentium with Windows XP or PowerMac with OS 9
- 56K modem or network access
- Internet provider with SLIP or PPP
- 8X or greater CD-ROM
- 64MB RAM
- Hard drive with 40MB available space
- 15" monitor, 800x600, color or 16 bit
- Sound card w/speakers
- Microphone and recording software
- Keyboard & mouse
- Netscape Communicator ver. 4.61 or Microsoft Internet Explorer ver. 5.0 /plug-ins
- Participants should have a basic proficiency of the following computer skills:
 - Sending and receiving email
 - A working knowledge of the Internet
 - Proficiency in Microsoft Word
 - Proficiency in the Acrobat PDF Reader
 - Basic knowledge of Windows or Mac O.S.

Netiquette (online etiquette): students are expected to participate in all discussions and virtual classroom chats when directed to do so. Students are to be respectful and courteous to others in the discussions. Foul or abusive language will not be tolerated. When referring to information from books, websites or articles, please use APA standards to reference sources.

Technical Support: Students should call the Prairie View A&M University Helpdesk at 936-261-2525 for technical issues with accessing your online course. The helpdesk is available 24 hours a day/7 days a week. For other technical questions regarding your online course, call the Office of Distance Learning at 936-261-3290 or 936-261-3282

Communication Expectations and Standards:

All emails or discussion postings will receive a response from the instructor within 48 hours.

You can send email anytime that is convenient to you, but I check my email messages continuously during the day throughout the work-week (Monday through Friday). I will respond to email messages during the work-week by the close of business (5:00 pm) on the day following **my receipt** of them. Emails that I receive on Friday will be responded to by the close of business on the following Monday.

Submission of Assignments:

Assignments, Papers, Exercises, and Projects will distributed and submitted through your online course. Directions for accessing your online course will be provided. Additional assistance can be obtained from the Office of Distance Learning.

Discussion Requirement:

Because this is an online course, there will be no required face to face meetings on campus. However, we will participate in conversations about the readings, lectures, materials, and other aspects of the course in a true seminar fashion. We will accomplish this by use of the discussion board.

Students are required to log-on to the course website often to participate in discussion. It is strongly advised that you check the discussion area daily to keep abreast of discussions. When a topic is posted, everyone is required to participate. The exact use of discussion will be determined by the instructor.

It is strongly suggested that students type their discussion postings in a word processing application and save it to their PC or a removable drive before posting to the discussion board. This is important for two reasons: 1) If for some reason your discussion responses are lost in your online course, you will have another copy; 2) Grammatical errors can be greatly minimized by the use of the spell-and-grammar check functions in word processing applications. Once the post(s) have been typed and corrected in the word processing application, it should be copied and pasted to the discussion board.