



SYLLABUS

PHYS 2523: University Physics II Fall 2018

Instructor: Storr, Kevin
Section # and CRN: P04 CRN 10317
Office Location: New Science Building 330 H
Office Phone: 936-261-3132
Email Address: kastorr@pvamu.edu
Office Hours: Monday, Wednesday: 1pm – 4pm Friday: 1pm – 3pm Also Online using Zoom and email
Mode of Instruction: Face to Face

Course Location: NSB, Room A104
Class Days & Times: MWF 12:00 PM – 12:50 PM
Catalog Description: A continuation of PHYS 2513, a calculus-based introductory physics course for science and engineering students. Course includes electricity, magnetism, and selected topics from sound and light.

Homework website Link: **Homework Website:** quest.cns.utexas.edu ID # 37576

Prerequisites: PHYS 2513 and MATH 2024
Co-requisites: None

Required Texts: **Physics for Scientists and Engineers, 4th ed.** by Giancoli
 ISBN: 978-013-227359-6 (Pearson/ Prentice Hall)

Recommended Texts: **Physics for Scientists and Engineers, 6th Edition**, by Serway and Jewett, ISBN: 0-534-40842-7 and **Physics for Scientists and University Physics with Modern Physics** by Bauer and Westfall
 ISBN: 978-0-077-35483-1 (Pearson/Addison-Wesley)

<http://www.khanacademy.org/>
https://www.youtube.com/watch?v=El3g9XiZ-iA&list=PLUdYIQf0_sSfcNOPSNPQKHDhSjTJATPu

Student Learning Outcomes:

| | Upon successful completion of this course, students will be able to: | Program Learning Outcome # Alignment | Core Curriculum Outcome Alignment |
|---|--|--------------------------------------|-------------------------------------|
| 1 | Understand the relationship among electric force and field, electric potential, kinetic and potential. | 1 | Critical Thinking |
| 2 | Demonstrate the origin of magnetic field from electrical currents and be able to apply the Biot-Savart law and Ampere's law. | 1 | Critical Thinking and Communication |
| 3 | Understand capacitance and resistance in DC circuits and their roles in the storage and dissipation of electrical energy. | 1 | Empirical and Quantitative |
| 4 | Participate in group homework and in-class exercises. | 1 | Teamwork |
| 5 | Understand the basic wave properties of light: reflection, refraction, interference, and diffraction. | 1 | Critical Thinking |
| 6 | Discuss and explain numerical problems in the class. | 1 | Communication |

Major Course Requirements

Method of Determining Final Course Grade

| Course Grade Requirement | Value | Total |
|--------------------------|-----------------------------|-------------|
| 1) Online Homework | Percentage obtained | 25% |
| 2) Unit Exams | 3 unit tests of equal value | 50% |
| 3) Group Project | Video Project | 5% |
| 4) Final Exam | Comprehensive | 20% |
| Total: | | 100% |

Grading Criteria and Conversion:

A = 80 – 100%

B = 70 – 79%

C = 60 – 69%

D = 50 – 59%

F = below 59%

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.

Course Procedures or Additional Instructor Policies

Taskstream

Taskstream is a tool that Prairie View A&M University uses for assessment purposes. One of your assignments may be considered an "artifact," an item of coursework that serves as evidence that course objectives are met. More information will be provided during the semester, but for general information, you can visit Taskstream via the link in eCourses.

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This course will utilize the following instruments to determine student grades and proficiency of the learning outcomes for the course.

- **Lectures:** Attendance of lectures is required, and students are expected to arrive on time, stay for the entire class period, and actively participate. (See the University attendance policy below.) The lecture does not replace reading the materials. The lecture is intended to expand, explain, and offer a different perspective on the material in the textbooks.
- **Exercises:** In-class exercises may be given daily. Students may use their notes, textbooks, and discuss the problem with their immediate neighbors. These if given will count as bonus points that will be added to the test points.
- **Homework:** Online homework problems will be assigned on a timely basis. It is the responsibility of the student, individually or within a group, to complete each homework assignment by the due date. The instructor is available during office hours to assist students, and tutors are provided by the Physics Department. It is essential that the student understands the solution to problems if he/she is to succeed in this course; failure to understand homework problems will likely result in a disastrous outcome on exams.
- **Exams:** Three unit exams and a final exam are scheduled. Only calculators and no other electronic equipment are permitted during the exams. Phones are to be turned off and unavailable.

- **Late Homework or Missed Tests:** Late homework will not be accepted unless the student demonstrates exceptional circumstances. A class exercise cannot be made up. A unit exam may be excused or made-up at the instructor's discretion and only in the case that the student has a valid excuse. Inform the instructor in advance of an exam if there is a valid schedule conflict to schedule an acceptable time. 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. There may be no opportunity to take the final exam after the scheduled time.

- **Group Project:** Students will create a group video with a maximum of 3 to 5 participants based upon the class size. It can be based on any topic addressed in class or lab. It may be in the form of a lecture or experiment.

https://www.youtube.com/channel/UCvkAz7kerpFEAMtkyPJnzcw/videos?sort=dd&shelf_id=0&view=0

- **Electronic equipment:** No phones, computers, audio or other electronic equipment are permitted during class hours. This includes lectures, exercises and exams. Only calculators are permitted. Exception: e-textbook and HW access during lectures

CLASS SCHEDULE

(Schedule Subject to Change)

| <u>Week</u> | <u>Topic</u> | <u>Note</u> |
|---------------------|---|---|
| 1 (Aug 27 – 31) | Ch. 21: Electrostatics | Late Registration & Drop/Add Ends on Sep 19 for Undergrad. & on Sep 20 for Graduate Students |
| 2 (Sept 3 – 7) | Ch. 21: Cont'd Ch. 22: Electric Fields and Gauss's Law | Sep. 3 Labour Day (University Closed) |
| 3 (Sept 10 – 14) | Ch. 22: Cont'd Ch. 23: Electric Potential | Sep 12: Last day to withdraw from course without academic record |
| 4 (Sept 17 – 21) | Ch. 23: Cont'd Ch. 24: Capacitors | |
| 5 (Sept 24 – 28) | Ch. 25: Current and Resistance | |
| 6 (Oct 1 – 5) | Ch. 26: Direct Current Circuits | Exam 1 |
| 7 (Oct 8 – 12) | Ch. 27: Magnetism | |
| 8 (Oct 15 – 19) | Ch. 28: Magnetic Fields of Moving Charges | Mid-Term Exams October 18 - 120 |
| 9 (Oct 22 – 26) | Ch. 28: (continued) | |
| 10 (Oct 29 – Nov 2) | Ch. 29: Electromagnetic Induction | Oct 31: Last day to apply for Fall graduation (ceremony participation) |
| 11 (Nov 5 – Nov 9) | Ch. 30: Electromagnetic Oscillations and Currents | Mar 25: Founders Day Convocation |
| 12 (Nov 12 – 16) | Ch. 31: Electromagnetic Waves | Apr 4: Last day to withdraw from course with "W" |
| 13 (Nov 19 – 23) | Ch. 32: Reflection and Refraction of Light | Nov 22 - 24 Thanksgiving Holidays (University Closed) |
| 14 (Nov 26 – 30) | Ch. 34: Wave Optics | Exam 3 |
| 15 (Dec 3 - 4) | Ch. 34: Wave Optics | Dec 4: Last day to withdraw from the university (from all courses) for the Fall 2018 |
| 15 (Dec 5 – Dec 11) | MT – Review Days; WR – Study Days | |
| | FINAL EXAM | Dec 13: Final grades due for graduating candidates Dec 18: Final grades due for all other students 11:59pm |

Student Support and Success

John B. Coleman Library

The library and its partners have as their mission "to provide resources and instructional material in support of the evolving curriculum, as a partner in Prairie View A&M University's mission of teaching, research, and service" and to support the University's core values of "access and quality, diversity, leadership, relevance, and social responsibility" through emphasis on ten key areas of service. It maintains library collections and access both on campus, online, and through local agreements to further the educational goals of students and faculty.

Center for Academic Support

The Center for Academic Support (CAS) offers Tutoring via peer tutoring. The services include workshops (i.e., Save My Semester, Recalculate Your Route), seminars (i.e., Tools You Can Use: TI-84), group review sessions (i.e., College Algebra Topic Reviews, GRE Preparation), group study opportunities (i.e., TSIA, HESI, Study Break, Exam Cram), and test-taking strategies (How to take Notes, Study Buddy, 5 Day Study Guide). The Tutoring Center is a nationally certified tutoring program through the National Tutoring Association. The peer tutors are trained and certified by the coordinator each semester. Location: J.B. Coleman Library

COMPASS

The Center for the Oversight and Management of Personalized Academic Student Success (COMPASS) is designed to help Prairie View students in their second year and beyond navigate towards graduation by providing the following services: Academic Advisement, Targeted Tutorials for Personalized Learning, Campus-Wide Referrals, and Academic & Social Workshops. Location: J.B. Coleman Library

Writing Center

The Writing Center provides student consultants on all aspects of the writing process and a variety of writing assignments. Writing Center consultations assist students in such areas as prewriting, brainstorming, audience awareness, organization, research, and citation. Location: Hilliard Hall 121

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.

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TECHNICAL CONSIDERATIONS

Minimum Recommended Hardware and Software:

- Intel PC or Laptop with Windows 7; Mac with OS X; Smartphone or iPad/Tablet with Wi-Fi
- High speed Internet access
- 8 GB Memory
- Hard drive with 320 GB storage space
- 15" monitor, 800x600, color or 16 bit
- Sound card w/speakers
- Microphone and recording software
- Keyboard & mouse
- Most current version of Google Chrome, Safari, Internet Explorer or Firefox

Note: Be sure to enable Java & pop-ups

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 (or a program convertible to 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 as directed. Students are to be respectful and courteous to others on discussions boards. Foul or abusive language will not be tolerated.

Technical Support:

Students should go to <https://mypassword.pvamu.edu/> if they have password issues. The page will provide instructions for resetting passwords and contact information if login issues persist. For other technical questions regarding eCourses, call the Office of Distance Learning at 936-261-3283

Communication Expectations and Standards:

Emails or discussion postings will receive a response from the instructor, usually in less than 48 hours. Urgent emails should be marked as such. Check regularly for responses.

Discussion Requirement:

Online courses often require minimal to no face-to-face meetings. However, conversations about the readings, lectures, materials, and other aspects of the course can take place in a seminar fashion. This will be accomplished by the use of the discussion board. 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.

HOMWORK WEBSITE INSTRUCTIONS

YOUR COURSE ID# is 37576

\$30 Fee required for website!

Registration is a two-step process. First register on the HW server, then for your course.

To Register on the Homework Server

1. Go to <https://quest.cns.utexas.edu/student>
2. Click the link which says, "Get Started"
3. Click the link which says, "*I need a UT EID*"
4. On the left click the link, "*Get a UT EID*"
5. Click Continue
6. Select **no** for **all** the questions asked and select continue
7. Answer the questions, only questions with an asterisk are required, please enter a valid email address. Click continue
8. **IF** it says your EID may already exist, **DO NOT CLAIM IT!** Click, **I DONT SEE MY UT EID.**
9. Answer the reset questions, click continue
10. Create a password with hints, select continue
11. Confirm information and select, **CREATE MY UTEID.**
12. Record your UTEID

To Register for your Course

1. Log on to [://quest.cns.utexas.edu/student](https://quest.cns.utexas.edu/student) using your new UTEID and password
2. click the link, **Register** as a student
3. Enter the 5 digit course ID # **37576.**
4. Enter your last name, first name
5. Enter your UTEID (**NOT YOUR SSN!**), click OK
6. Click OK **ONCE** and wait until confirmation of registration
7. Now when you log in, you will see your course ID# and your instructor's name.