

TEXARKANA COLLEGE

Syllabus: University Physics

Course Number: Phys 2325

Semester & Year: Spring 2026

Instructor Information

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Textbook Information

University Physics Volume 2 by William Moebs, Samuel J. Ling, Jeff Sanny, et al.

Calculus-based Introductory Physics Text

ISBN-13: 978-1-938168-16-1

Open Source Software Download free from: <https://openstax.org/details/books/university-physics-volume-2>

University Physics Volume 3 by William Moebs, Samuel J. Ling, Jeff Sanny, et al.

Calculus-based Introductory Physics Text

ISBN-13: 978-1-938168-18-5

Open Source Software Download free from: <https://openstax.org/details/books/university-physics-volume-3>

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1. View on Web Free – download material that you wish
2. Download whole book on PDF (low resolution 28 Mb) (high resolution 97 Mb)
3. Order a paper copy (Approximately \$50)

Course Communication

Official communication is through TC student email.

Course Webpage – Students are required to be able to access Moodle page as needed.

Student Learning Outcomes for the Course

Upon successful completion of this course, students will:

1. Articulate the fundamental concepts of electricity and electromagnetism, including electrostatic potential energy, electrostatic potential, potential difference, magnetic field, induction, and Maxwell's Laws.
2. State the general nature of electrical forces and electrical charges, and their relationship to electrical current.
3. Solve problems involving the inter-relationship of electrical charges, electrical forces, and electrical fields.
4. Apply Kirchhoff's Laws to analysis of circuits with potential sources, capacitance, and resistance, including parallel and series capacitance and resistance.
5. Calculate the force on a charged particle between the plates of a parallel-plate capacitor.

6. Apply Ohm's law to the solution of problems.
7. Describe the effects of static charge on nearby materials in terms of Coulomb's Law.
8. Use Faraday and Lenz's laws to find the electromotive forces.
9. Describe the components of a wave and relate those components to mechanical vibrations, sound, and decibel level.
10. Articulate the principles of reflection, refraction, diffraction, interference and superposition of waves.
11. Solve real-world problems involving optics, lenses, and mirrors.

Student Requirements for Completion of the Course

Homework

Chapter Tests

Project

Final Exam

Student Assessment

The following points may be earned:

1. <u>Homework</u>	30%
2. <u>Quizzes</u>	20%
3. <u>Exams</u>	30%
4. <u>Project</u>	10%
5. <u>Final</u>	10%
<u>Total</u>	100%

Grading Scale (for College Grade)

Semester Grade	Points
A	90-100
B	80-89
C	70-79
D	60-69
F	59-below

Absentee Policy

Texarkana College's absentee policy allows instructors to withdraw a student from a course due to excessive absences. If a student leaves and returns during class or leaves the class before the class is over, he/she **may** be considered absent. Three tardies constitute one absence.

Faculty members **are not** obligated to provide opportunities for students to make-up missed assignments and tests as a result of a student's absence from class. The institution is not required to take attendance with the exception of workforce/vocational areas, where certification requirements require taking attendance. However, experience demonstrates that regular attendance enhances academic success. As such, students are expected to attend each meeting of their registered courses.

A student should not stop attending a class without formally withdrawing from the course by the institutions published Last Day for Students to Drop. If a student stops attending class after the published Last Day for Students to Drop, the student **may** receive a grade of "F" in the class. The instructor will submit the last date of attendance for students receiving a grade of "F" or "W".

Withdrawal from a course(s) **may** affect a student's current or future financial aid eligibility. Students should consult the Financial Aid Office to learn both short and long term consequences of a withdrawal.

Excused absences

A student's absence due to school trips and/or school business will not be counted against a student's allowable number of absences. Military duty and absences for Holy Days (FBD LEGAL) are covered in a separate section of the catalog and the student handbook. These are the only excused absences that are considered by Texarkana College. Responsibility for work missed for any absence is placed on the student. Instructors are required to allow students to make up work missed if the absence is due to military duty* or religious holy days when students follow the correct notification procedures. Instructors are not required to allow students to make up work for absences due to other reasons.

An absence is defined as any time you are not in class. You are allowed 4 absences for a class that meets two times a week for 1½ hours per period. You will be dropped for any absence over the 4 allowed. *Being dropped from the course could affect your financial aid.

Make-up Policy

Only certain work can be made up and only if the student has a very good excuse for not doing the work. **Tests may not be made up.**

Assignments

Late work will have 20% of that grade deducted for each day late (excluding weekends) up to three days late. After this the paper will not be accepted.

Cell Phones

All cell phones must be turned off and placed out of sight and off your body. Violations may result in your being asked to leave the class and counted absent.

Course Correspondence

Any course correspondence will be through TC student email. It is the student's responsibility to check his/ her TC email regularly for any communication related to the course.

*Being dropped from the course could affect your financial aid.

Academic Integrity Statement

Scholastic dishonesty, involving but not limited to cheating on a test, plagiarism, collusion, or falsification of records will make the student liable for disciplinary action after being investigated by the Dean of Students. Proven violations of this nature will result in the student being dropped from the class with an "F". This policy applies campus wide, including TC Testing Center, as well as off-campus classroom or lab sites, including dual credit campuses. This information can be found in the Student Handbook at <https://texarkanacollege.edu>.

Disability Act Statement:

Texarkana College complies with all provisions of the Americans with Disabilities Act and makes reasonable accommodations upon request. Please contact Larry Andrews at 903.823.3283, or go by the Recruitment, Advisement, and Retention Department located in the Administration building for personal assistance.

If you have an accommodation letter from their office indicating that you have a disability which requires academic accommodations, please present it to me so we can discuss the accommodations that you might need for this class. It is best to request these changes at the beginning if not before the start of class so there is ample time to make the accommodations.

Financial Aid:

Attention! Dropping this class may affect your funding in a negative way! You could owe money to the college and/or federal government. Please check with the Financial Aid office before making a decision.