

Physics 1301010

General Physics I



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Office Hours: by email appointment

Course Information

Course Description

Study of mechanics, thermodynamics, and waves. (This course will not count as the introductory physics course for physics majors and pre-engineering majors.)

Prerequisite and Co-requisite Courses

Concurrent enrollment in, or credit for, Physics 1101 is required. Prerequisite: Mathematics 1314 or equivalent.

Prerequisite Skills

Ability to use Blackboard, to use a scientific calculator, and proficiency in college algebra and trigonometry are expectations of this course.

Student Learning Outcomes

Upon completion of this course, students will be able to:

- Gain a basic understanding of physics (e.g., factual knowledge, methods, principles, generalizations, theories)
- Learn to apply course material (to improve thinking, problem solving, and decisions)
- Acquiring skills in working with others as a member of a team (in-class problems)

Course Delivery

This course is a face-to-face course with learning resources and supplemental materials posted in Blackboard.

Required Texts and Materials

“College Physics” is available from [OpenStax College](https://openstax.org) for free. You also need a scientific calculator to complete in-class problems. A student of this institution is not under any obligation to purchase a

textbook from a university-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

Technology Requirements

To successfully complete this course, students need to use a scientific calculator, Blackboard, and complete the IDEA student ranking of instruction.

Communication

Faculty will respond to email and/or telephone messages within 24 hours during working hours Monday through Friday. Weekend messages may not be returned until Monday.

Grading

Evaluation and Grades

Course grades will be determined as indicated in the table below.

Assessment	Percent of Total Grade
Homework Assignments	20%
Highest 3 out of 4 Exam Grades	60%
Physics Concept Inventory	20%
Total	100%

Grading System

Course grades will be dependent upon completing course requirements and meeting the student learning outcomes.

The following grading scale is in use for this course:

- A = 90.00-100 points
- B = 80.00-89.99 points
- C = 70.00-79.99 points
- D = 60.00-69.99 points
- F = 0-59.99 points (Grades are not rounded up)

Assignment and Activity Descriptions

In-class homework assignments will assess written communication (CS), critical thinking (CT) and teamwork (TW). The Physics Concept Inventory will assess empirical and quantitative science (EQS).

General Policies Related to This Course

All students are required to follow the policies and procedures presented in these documents:

- [Angelo State University Student Handbook](#)¹
- [Angelo State University Catalog](#)²

Academic Integrity

Students are expected to maintain complete honesty and integrity in all work. Any student found guilty of any form of dishonesty in academic work is subject of disciplinary action and possible expulsion from ASU.

The College of Science and Engineering adheres to the university's [Statement of Academic Integrity](#).³

Accommodations for Students with Disabilities

ASU is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments of 2008 (ADAAA) and subsequent legislation.

Student Disability Services is located in the Office of Student Affairs, and is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability. It is the student's responsibility to initiate such a request by contacting an employee of the Office of Student Affairs, in the Houston Harte University Center, Room 112, or contacting the department via email at ADA@angelo.edu. For more information about the application process and requirements, visit the [Student Disability Services website](#).⁴ The employee charged with the responsibility of reviewing and authorizing accommodation requests is:

Dallas Swafford
Director of Student Disability Services
Office of Student Affairs
325-942-2047
dallas.swafford@angelo.edu
Houston Harte University Center, Room 112

Incomplete Grade Policy

It is policy that incomplete grades be reserved for student illness or personal misfortune. Please contact faculty if you have serious illness or a personal misfortune that would keep you from completing course work. Documentation may be required. See ASU Operating Policy 10.11 [Grading Procedures](#)⁵ for more information.

Plagiarism

Plagiarism is a serious topic covered in ASU's [Academic Integrity policy](#)⁶ in the Student Handbook. Plagiarism is the action or practice of taking someone else's work, idea, etc., and passing it off as one's own. Plagiarism is literary theft.

In your discussions and/or your papers, it is unacceptable to copy word-for-word without quotation marks and the source of the quotation. It is expected that you will summarize or paraphrase ideas giving appropriate credit to the source both in the body of your paper and the reference list.

Papers are subject to be evaluated for originality. Resources to help you understand this policy better are available at the [ASU Writing Center](#).⁷

Student Absence for Observance of Religious Holy Days

A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. See ASU Operating Policy 10.19 Student Absence for [Observance of Religious Holy Day](#)⁸ for more information.

Title IX at Angelo State University

The University prohibits discrimination based on sex, which includes pregnancy, sexual orientation, gender identity, and other types of Sexual Misconduct. Sexual Misconduct is a broad term encompassing all forms of gender-based harassment or discrimination including: sexual assault, sex-based discrimination, sexual exploitation, sexual harassment, public indecency, interpersonal violence (domestic violence and/or dating violence), and stalking. As a faculty member, I am a Responsible Employee meaning that I am obligated by law and ASU policy to report any allegations I am notified of to the Office of Title IX Compliance.

Students are encouraged to report any incidents of sexual misconduct directly to ASU's Office of Title IX Compliance and the Director of Title IX Compliance/Title IX Coordinator at:

Michelle Miller, J.D.
Special Assistant to the President and Title IX Coordinator
Mayer Administration Building, Room 210
325-486-6357
michelle.boone@angelo.edu

You may also [file a report online](#)⁹ 24/7.

If you are wishing to speak to someone about an incident in confidence you may contact the University Health Clinic and Counseling Center at 325-942-2173 or the ASU Crisis Helpline at 325-486-6345.

For more information, visit the [Title IX website](#).¹⁰

Required Use of Masks/Facial Coverings by Students

As a member of the Texas Tech University System, Angelo State University has adopted the mandatory [Facial Covering Policy](#)¹¹ to ensure a safe and healthy classroom experience. Current research on the COVID-19 virus suggests there is a significant reduction in the potential for transmission of the virus from person to person by wearing a mask/facial covering that covers the nose and mouth areas. Therefore, in compliance with the university policy students in this class are required to wear a mask/facial covering before, during, and after class. Faculty members may also ask you to display your daily screening badge as a prerequisite to enter the classroom. You are also asked to maintain safe distancing practices to the best of your ability. For the safety of everyone, any student not appropriately wearing a mask/facial covering will be asked to leave the classroom immediately. The student will be responsible to make up any missed class content or work. Continued

non-compliance with the Texas Tech University System Policy may result in disciplinary action through the Office of Student Conduct.

Modifications to the Syllabus

This syllabus, including grade evaluation and course schedule, is subject to modification. In particular, the COVID-19 pandemic may require significant changes in course delivery and content on potentially short notice.

Course Schedule

DATE	LESSON	REVIEW PROBLEMS
June 7	Introduction	2, 7, 17, 25, 32
June 8-9	Kinematics	2, 9, 16, 23, 45
June 10-11	Two-dimensional Kinematics	2, 11, 16, 25, 40
June 14	EXAM #1	
June 15-16	Dynamics	5, 13, 20, 35, 43
June 17	Friction, Drag, and Elasticity	2, 11, 22, 33
June 18	Statics and Torque	2, 7, 28, 37
June 21	Work and Energy	2, 12, 18, 27, 38
June 22	EXAM #2	
June 23	Fluid Statics	2, 12, 17, 36, 49
June 24	Fluid Dynamics	4, 19, 33
June 25 and 28	Oscillatory Motion and Waves	3, 11, 18, 24, 48
June 29	Physics of Hearing	6, 19, 33, 42
June 30	EXAM #3	
July 1	Temperature, Energy, and Gases	4, 10, 28, 40, 53
July 2	Heat and Heat Transfer	3, 15, 32, 48, 59
July 5-6	Thermodynamics	2, 20, 29, 38, 48
July 7	EXAM #4	
July 8	Review for Physics Concept Inventory	
July 9	Physics Concept Inventory	In Blackboard

¹ <https://www.angelo.edu/current-students/student-handbook/>

² <https://www.angelo.edu/academics/catalog/>

³ <https://www.angelo.edu/live/files/27603-student-handbook-2020-21#page=96>

⁴ <https://www.angelo.edu/current-students/disability-services/>

⁵ <https://www.angelo.edu/content/files/14197-op-1011-grading-procedures>

⁶ <https://www.angelo.edu/live/files/27603-student-handbook-2020-21#page=96>

⁷ https://www.angelo.edu/current-students/writing-center/academic_honesty.php

⁸ <https://www.angelo.edu/content/files/14206-op-1019-student-absence-for-observance-of>

⁹ <http://www.angelo.edu/incident-form>

¹⁰ <https://www.angelo.edu/title-ix>

¹¹ <http://www.texastech.edu/downloads/ttus-policy-face-coverings.pdf>