NORTHEAST TEXAS COMMUNITY COLLEGE

PHYS 1401 42D – General Physics I

Course Syllabus: Fall 2026

"Northeast Texas Community College exists to provide personal, dynamic learning experiences empowering students to succeed."

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Weekday	Office Hours
Monday	7:15 – 8:00
Tuesday	7:15 – 8:00
Wednesday	7:15 – 8:00
Thursday	7:15 – 8:00
Friday	7:15 – 8:00

This syllabus serves as the documentation for all course policies and requirements, assignments, and instructor/student responsibilities.

Information relative to the delivery of the content contained in this syllabus is subject to change. Should that happen, the student will be notified.

Course Description:

Four credit hours. This course is for pre-dental, biology, pre-medical, pre-pharmacy, and pre-architecture majors and other students who need a two-semester technical course in physics. The course includes mechanics, fluids, heat, and waves.

Prerequisite(s):

Student Learning Outcomes:

1. Determine the components of linear motion (displacement, velocity, and acceleration) and especially motion under conditions of constant acceleration.
2. Apply Newton's Laws to physical problems including gravity.
3. Solve problems using principles of energy.
4. Use principles of impulse and linear momentum to solve problems.
5. Solve problems in rotational kinematics and dynamics, including the determination of the location of the center of mass and center of rotation for rigid bodies in motion.
6. Describe the components of a wave and relate those components to mechanical vibrations, sound, and decibel level.
7. Demonstrate an understanding of equilibrium, including the different types of equilibrium.
8. Discuss simple harmonic motion and its application to quantitative problems or qualitative questions.
9. Solve problems using the principles of heat and thermodynamics.

Upon successful completion of the laboratory portion of this course, students will:

1. Demonstrate techniques to set up and perform experiments, collect data from those experiments, and formulate conclusions from an experiment.

2. Record experimental work completely and accurately in laboratory notebooks, and communicate experimental results clearly in written reports.
3. Discuss experimental observations and how they relate to qualitative questions and quantitative problems.

Evaluation/Grading Policy:

The breakdown of the course requirements is as follows:

%	Requirement
75%	Exams
25%	Assignments

Semester grades will be earned as follows

Percentage	Letter Grade
90% and above	A
80% – 89%	B
70% – 79%	C
60% – 69 %	D
59.9% and below	F

Assignments consists of questions / problems from the chapters administered through Webassign. These problems can be reworked up to five times with decreasing credit for each attempt. The last grade earned for each assignment will be posted in the Blackboard gradebook. There are no extensions on due dates in order to maintain the course schedule.

Quizzes consists of short summary questions / problems over the chapter assignments. These are multiple choice and free response type questions. The quizzes are located and completed in the Blackboard content page in the "Quizzes" folder. These are timed assignments and must be completed in one session.

Laboratory work is completed through the Lab Procedures found in the Blackboard content page. Obtain the lab kit from the NTCC college store according to their instructions. Because students receive their lab kits at different times, I have set the due dates for the lab assignments later in the semester. However, I encourage you to perform the labs concurrently with the course materials to reinforce your understanding of the concepts as much as possible.

There are two exams administered through Webassign at scheduled windows during the semester. The exams become available two calendar days prior to the due date. The exam sessions are required to be proctored. My first choice is by use of a physical testing facility of your choice. I will request the information for the facility prior to exam 1. I will require verification from the testing center that you completed the exam at their center. An alternative method is to record your exam session with a web cam while producing a screen share using the TEAMS app in Blackboard. By choosing this method, you are accepting full responsibility for the integrity of the

exam session. The TEAMS recording must provide a proctoring session equivalent to use of a testing center – I must see your materials at all times, and I must see your screen showing all information you are accessing. (Failure to produce an acceptable video / screen share with all materials in full view will result in a 60 point maximum exam score.) The instructions are shown in the TEAMS folder on the content page of Blackboard. The exams allow two attempts for each individual question for diminishing credit. There is a four hour time limit for exam 1 and a three hour time limit for exam 2. The exams must be completed in a single session (the timer does not stop once you begin the exam). There are no makeup exams available if you miss a due date.

Webassign grades are automatically imported into Blackboard throughout the semester. If you see a grade in Blackboard that does not match an assignment grade in Webassign, it probably was in progress at the time of refreshing. Check back to see if it updates. The Blackboard gradebook is the official course grade since it is home to the quizzes and labs.

(The highlighted information is for online courses only. Physics 1401 42D HY is face to face. Exams, assignments, lab procedures and reports, and quizzes will all be administered in the classroom.)

Required Instructional Materials:

Publisher: Cengage Learning **ISBN Number:** 9780357976470

Students will be issued a textbook in the classroom.

Optional Instructional Materials:

A hardback copy of the textbook may be obtained from the NTCC bookstore.

Minimum Technology Requirements:

You will need a scientific calculator for this class.

Required Computer Literacy Skills:

Ability to access the internet and upload documents and pictures to apps.

Course Structure and Overview:

Chapter 1 Introduction and Mathematical Concepts
Chapter 2 Kinematics in One Dimension
Chapter 3 Kinematics in Two Dimensions
Exam 1
Chapter 4 Forces and Newton's Laws of Motion
Chapter 7 Rotational Motion and the Law of Gravity
Exam 2
Chapter 5 Energy / Chapter 13 Vibrations and Waves
Chapter 6 Momentum and Collisions
Exam 3
Chapter 9 Solids and Fluids
Chapter 10 Thermal Physics
Chapter 11 Energy in Thermal Processes
Chapter 12 The Laws of Thermodynamics
Exam 4
Chapter 13 Vibrations and Waves (SHM)
Chapter 14 Sound
Final Exam

Communications:

The college's official means of communication is via your campus email address. I will use your campus email address and Blackboard announcements / messages to communicate with you outside of class. Make sure you keep your campus email cleaned out and below the limit so you can receive important messages.

Institutional/Course Policy:

Alternate Operations During Campus Closure and/or Alternate Course Delivery Requirements:

In the event of an emergency or announced campus closure due to a natural disaster or pandemic, it may be necessary for Northeast Texas Community College to move to altered operations. During this time, Northeast Texas Community College may opt to continue delivery of instruction through methods that include, but are not limited to, online through the Blackboard Learning Management System, online conferencing, email messaging, and/or an alternate schedule. It is the responsibility of the student to monitor NTCC's website (http://www.ntcc.edu/) for instructions about continuing courses remotely, Blackboard for each class for course-specific communication, and NTCC email for important general information.

Additionally, there may be instances where a course may not be able to be continued in the same delivery format as it originates (face-to-face, fully online, live remote, or hybrid). Should this be the case, every effort will be made to continue instruction in an alternative delivery format. Students will be informed of any changes of this nature through email messaging and/or the Blackboard course site.

Statement Regarding the Use of Artificial Intelligence (AI) Technology:

Employees and students shall be permitted to explore artificial intelligence (AI) and implement its use in and out of the classroom in accordance with policy and administrative regulations. The use of AI shall only be as a support tool to enhance student outcomes or as necessary to engage in research and shall never take the place of faculty, staff, and student decision-making. Any use of AI must comply with law, policy, and administrative regulations relating to student and employee privacy and data security. A student shall only use AI tools with faculty permission and shall be expected to produce original work and properly credit sources, including AI tools used in creating the work.

Example:
APA (7th edition)

OpenAI. (2026). ChatGPT (March 25 version) [Large language model]. https://chat.openai.com/

MLA (9th edition)

OpenAI. ChatGPT. 25 Mar. 2026, https://chat.openai.com/.

Employees or students who use AI tools to deceptively harm, bully, or harass others shall be disciplined in accordance with policy. [See DH, DIA series, FFD series, FFE, FLB, and the FM series] AI Use by Employees and Students. Northeast Texas Community College 225500 TECHNOLOGY RESOURCES CRB ARTIFICIAL INTELLIGENCE (LOCAL) DATE ISSUED: 12/8/2025 1 of 1 UPDATE 50 CRB(LOCAL)-AJC Adopted: 12/16/2025

NTCC Academic Honesty/Ethics Statement:

NTCC upholds the highest standards of academic integrity. The college expects all students to engage in their academic pursuits in an honest manner that is beyond reproach using their intellect and resources designated as allowable by the course instructor. Students are responsible for addressing questions about allowable resources with the course instructor. Academic dishonesty such as cheating, plagiarism, and collusion is unacceptable and may result in disciplinary action. This course will follow the NTCC Academic Honesty and Academic Ethics policies stated in the Student Handbook. Refer to the student handbook for more information on these subjects.

ADA Statement:

It is the policy of NTCC to provide reasonable accommodation for qualified individuals who are students with disabilities. This College will adhere to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodation as required to afford equal educational opportunity. It is the student's responsibility to request accommodation. An appointment can be made with the Academic Advisor/Coordinator of Special Populations located in Student Services and can be reached at 903-434-8264. For more information and to obtain a copy of the Request for Accommodations, please refer to the special populations page on the NTCC website.

Family Educational Rights and Privacy Act (FERPA):

The Family Educational Rights and Privacy Act (FERPA) is a federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education. FERPA gives parents certain rights with respect to their children's educational records. These rights transfer to the student when he or she attends a school beyond the high school level. Students to whom the rights have transferred are considered "eligible students." In essence, a parent has no legal right to obtain information concerning the child's college records without the written consent of the student. In compliance with FERPA, information classified as "directory information" may be released to the general public without the written consent of the student unless the student makes a request in writing. Directory information is defined as: the student's name, permanent address and/or local address, telephone listing, dates of attendance, most recent previous education institution attended, other information including major, field of study, degrees, awards received, and participation in officially recognized activities/sports.

Tentative Course Schedule:

Chap.	Title	*Week*	*Key Due Dates**
1	Introduction and Mathematical Concepts	*1 - 2*	
2	Kinematics in One Dimension	*2 - 3*	
3	Kinematics in Two Dimensions	*3 - 4*	
	Exam #1		
4	Forces and Newton's Laws of Motion	*4 - 5*	
7	Rotational Motion and the Law of Gravity	*5 - 6*	
	Exam #2		
5 / 13	Work and Energy / Springs	*7 -8*	
6	Impulse / Momentum	*8 – 9*	
	Exam #3		
9	Solids and Fluids	*10*	
10 / 11	Thermal Physics / Thermal Processes	*11 – 12*	
12	The Laws of Thermodynamics	*12 – 13*	
	Exam #4		
13 /14	Vibrations and Waves (SHM) / Sound	*14 - 16*	
	Final Exam		