

Physics 2425, section-01E, University Physics I

Instructors: Dr. Bao-An Li

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Office Hours: MWF 10:00am-12noon or [by email appointments](#)

Text book: Physics for Scientists and Engineers| A Strategic Approach (5e) by Randall D. Knight, www.Pearson.com, ISBN-13: 978-0-13-734638-7

The textbook is required.

Course Description

This is a calculus-based introductory physics course in mechanics. Topics include kinematics, dynamics, energy, impulse and momentum, collisional problems, and rotational motion of rigid objects.

University Catalog Description

Calculus based physics course in mechanics for science, mathematics and engineering students.

Prerequisites: You must be currently enrolled in Calculus I or have previously taken Calculus I.

Student Learning Outcomes (Should be measurable; observable; use action verbs)

1. Students will be able use momentum to describe a physical situation and calculate the motion of an object using these quantities.
2. Students will be able to represent the forces on an object in a physical situation and calculate the resulting motion using Newton's Laws.
3. Students will be able use energy to describe a physical situation and calculate the motion of an object using these quantities.
4. Students will be able to precisely explain and calculate motion using the concepts of position, velocity, and acceleration

Grading Procedure and Scale:

Labs: The laboratory activities count 20% of the course grade

You must pass the lab part with at least a C (>70%) to pass this course to meet the state accreditation requirement, regardless of your scores in other portions of the course

Course Grade: The lecture portion of the grade is determined by Online Discussions, Homeworks and 3 Exams:

Homeworks (submit on D2L in PDF, Late Homework NOT accepted/graded unless otherwise pre-approved by the instructor before the deadline) 25 %

Three Exams (Dates will be announced on D2L and in class, 15% each) 45%

Labs (Late Lab Reports NOT accepted/graded unless otherwise pre-approved by the instructor) 20%

Online Discussions (must post one physically meaningful and relevant question on the specific topic of the chapter and answer one question posted by others, late submissions NOT graded unless otherwise pre-approved by the instructor) 10%

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|--------------------------------|---|
| 90 and above: | A |
| 80 and above but less than 90: | B |
| 70 and above but less than 80: | C |
| 60 and above but less than 70: | D |
| Less than 60: | F |

Topics covered (tentative)

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|------------|-------------------------------------|
| Chapter 1 | Introduction and Concepts of Motion |
| Chapter 2 | Kinematics in One Dimension |
| Chapter 3 | Vectors and Coordinate Systems |
| Chapter 4 | Kinematics in Two Dimensions |
| Chapter 5 | Forces and Newton's Laws of Motion |
| Chapter 6 | Dynamics Along a Line |
| Chapter 7 | Dynamics on a Plane |
| Chapter 8 | Work and Energy |
| Chapter 9 | Interaction and Potential Energy |
| Chapter 10 | Impulse and Momentum |
| Chapter 11 | Rotation of a Rigid Body |

Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

TECHNOLOGY REQUIREMENTS

LMS

All course sections offered by East Texas A&M University (ETAMU) have a

corresponding course shell in the myLeo Online Learning Management System (LMS). Below are technical requirements

LMS Requirements:

https://community.brightsp_ace.com/s/article/Brightsp_ace-Platform-Requirements

LMS Browser Support:

https://documentation.brightsp_ace.com/EN/brightsp_ace/requirements/all/browser_supp_ort.htm

Zoom Video Conferencing Tool

https://inside.tamuc.edu/campuslife/CampusServices/CITESupp_ortCenter/Zoom_Account.asp_x?source=universalmenu

ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or helpdesk@tamuc.edu.

Note: Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a ETAMU campus open computer lab, etc.

COMMUNICATION AND SUPPORT

If you have any questions or are having difficulties with the course material, please contact your Instructor.

Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here:

<https://community.brightspace.com/support/s/contactsupport>

Interaction with Instructor Statement

COURSE AND UNIVERSITY PROCEDURES/POLICIES **Course Specific Procedures/Policies**

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University Specific Procedures **Student Conduct**

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the Student Guidebook

http://www.tamuc.edu/student_guidebook/Student_Guidebook.pdf

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: <https://www.britannica.com/topic/netiquette>

ETAMU Attendance

For more information about the attendance policy please visit the [Attendance](#) webpage and [Procedures 13.99.99.R0.01](#)

http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.asp_x

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf>

Academic Integrity

Students at East Texas A&M University are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

[Undergraduate Academic Dishonesty 13.99.99.R0.03](#)

[Undergraduate Student Academic Dishonesty Form](#)

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/documents/>

[13.99.99.R0.03UndergraduateStudentAcademicDishonestyForm.pdf](#)

[Graduate Student Academic Dishonesty Form](#)

<http://www.tamuc.edu/academics/graduateschool/faculty/GraduateStudentAcademicDishonestyFormold.pdf>

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf>

Students with Disabilities-- ADA Statement

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services

East Texas A&M University

Velma K. Waters Library Rm 162

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

Email: studentdisabilityservices@tamuc.edu

Website: [Student Disability Services](#)

<https://www.tamuc.edu/student-disability-services/>

Nondiscrimination Notice

East Texas A&M University will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

Campus Concealed Carry Statement

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in East Texas A&M University buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are

otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the [Carrying Concealed Handguns On Campus](#) document and/or consult your event organizer.

Web url: <http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

A&M-Commerce Supports Students' Mental Health

The Counseling Center at ETAMU located in the Halladay Building, Room 203, offers counseling services, educational programming, and connection to community resources for students. Students have 24/7 access to the Counseling Center's crisis assessment services by calling 903-886-5145. For more information regarding Counseling Center events and confidential services, please visit www.tamuc.edu/counsel

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AI use policy [Draft 2, May 25, 2023]

East Texas A&M University acknowledges that there are legitimate uses of Artificial Intelligence, ChatBots, or other software that has the capacity to generate text, or suggest replacements for text beyond individual words, as determined by the instructor of the course.

Any use of such software must be documented. Any undocumented use of such software constitutes an instance of academic dishonesty (plagiarism).

Individual instructors may disallow entirely the use of such software for individual assignments or for the entire course. Students should be aware of such requirements and follow

their instructors' guidelines. If no instructions are provided the student should assume that the use of such software is disallowed.

In any case, students are fully responsible for the content of any assignment they submit, regardless of whether they used an AI, in any way. This specifically includes cases in which the AI plagiarized another text or misrepresented sources.

13.99.99.R0.03 Undergraduate Academic Dishonesty

13.99.99.R0.10 Graduate Student Academic Dishonesty