



# PHYS 2425.001

## University Physics I

### COURSE SYLLABUS: Summer II 2022

**Instructor:** Dr. Kent Montgomery  
**Office Location:** STC 106  
**Office Hours:** MTWR 10-11, or by appointment  
**Office Phone:** 903-886-5488  
**University Email Address:** [kent.montgomery@tamuc.edu](mailto:kent.montgomery@tamuc.edu)  
**Graduate Assistant Teaching:**

## COURSE INFORMATION

**Textbook:** MasteringPhysics with Knight, Physics for Scientists and Engineers, 4<sup>th</sup> edition. You have the option of buying MasteringPhysics with etext only or MasteringPhysics with etext and traditional textbook.

### Course Description

This is a calculus-based introductory physics course in mechanics. Topics include kinematics, dynamics, momentum, energy, and applications of Newton's Laws.

### University Catalogue 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

1. Students will be able precisely explain and calculate motion using the concepts of position, velocity, and acceleration.
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 momentum and energy to describe a physical situation and calculate the motion of an object using these quantities.

## Online Course

The course is a totally online course. All homework, labs, tutorials and tests will be assigned and turned in through D2L Brightspace. Students must have sufficient computer hardware and skills to access the course on a daily basis. Announcements for the course will be put in D2L and should be checked for questions about the class. If you have questions that aren't answered in the announcements then email the instructor. The homework and tests will require showing work that must be uploaded for credit. Most smart phones can take pictures which can then be uploaded to D2L. The easiest way is to use an app that converts them to a pdf. Do a search in the app store. Many of these apps are free and easy to use.

Students are expected to watch the lecture videos daily as new material will continue to be posted throughout the class.

## COURSE REQUIREMENTS

### GRADING

Grades will be based on four components:

Exams	45 %
Final Exam	20 %
Mastering Physics Homework	15 %
Labs and Tutorials	20 %

Grading scale: Final Percentage

A > 90
80 < B < 90
70 < C < 80
60 < D < 70
F < 60

**Exams:** There will be three midterms and a final. The exams will be weighted equally (15 percent each). The final will be cumulative and accounts for 20%. See the course calendar for exam dates. Make-up exams will only be allowed for excused absences. See course policies below for details on excused absences.

**Mastering Physics:** The name for mastering physics is PHYS 2425.01E. To sign up use course id: **montgomery63114**. From mastering physics there will be 13 homework assignments throughout the semester (1 per chapter and an introduction). Homework will be submitted through Mastering Physics. The due dates will be displayed in Mastering Physics.

**Lab and Tutorial assignments:** Labs and tutorials are built in as part of the class. They will both be found under activities and assignments. Most of the labs will involve using online PhET simulations which can be found at <https://phet.colorado.edu>. You may need to download some software to make them run (latest version of Java) or make sure to use a compatible browser like Google Chrome.

# COURSE AND UNIVERSITY PROCEDURES/POLICIES

## Course Specific Procedures

1. The instructor must be notified by email (kent.montgomery@tamuc.edu) if you will be unable to take the test during the given time slot. If you do not follow this policy, you may not be able to make up missed exams or turn in late work except in extreme circumstances.
2. When emailing the instructor, include the **course and section number in the subject line**.
3. Students are expected to be professional and respectful and take responsibility for their learning. If you find yourself struggling, the instructors are available to provide extra help outside of class.

## University Specific Procedures

### ADA Statement

#### Students with Disabilities

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

Texas A&M University-Commerce

Gee Library- Room 132

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

Fax (903) 468-8148

[StudentDisabilityServices@tamuc.edu](mailto:StudentDisabilityServices@tamuc.edu)

### Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See *Code of Student Conduct from Student Guide Handbook*).

A&M-Commerce 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.

### Plagiarism

Plagiarism is a criminal activity. You must cite all sources of information. Unreferenced copying of material, whether parts of sentences, whole sentences, paragraphs, or entire articles can result in a score of zero for your assignment and may result in further disciplinary action.

## Campus Concealed Carry

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce 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 (<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>) and/or consult your event organizer). 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.

## COURSE CALENDAR

- **Tests (Tentative Schedule)**
  - *First Test* – Wednesday July 20<sup>th</sup> Chapters 1-4
  - *Second Test* – Friday July 29<sup>th</sup> Chapters 5--8
  - *Third Test* – Tuesday August 9<sup>th</sup> Chapters 9-12
- **Final exam:** Thursday, August 11<sup>th</sup> Comprehensive