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PHYS 2425.001

University Physics I

COURSE SYLLABUS: Summer 2016

**Instructor:** Dr. Kent Montgomery

**Office Location:** STC 148

**Office Hours:** MTWR 2-3, or by appointment

**Office Phone:** 903-468-8650

**University Email Address:** [kent.montgomery@tamuc.edu](mailto:kent.montgomery@tamuc.edu)

**Graduate Assistant Teaching:** Nathan Brady

# COURSE INFORMATION

## Textbook: MasteringPhysics with Knight, Physics for Scientists and Engineers, 3rd edition. You have the option of buying MasteringPhysics with etext only (ISBN 9780321753052) or MasteringPhysics with etext and traditional textbook (ISBN 9780321844354).

## PHYS 2425 Lab manual, available at the campus bookstore

## 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.

# COURSE REQUIREMENTS

# Grading

Grades will be based on four components:

Exams 45 %

Final Exam 20 %

MasteringPhysics Homework 15 %

Labs 20 %

Grading scale: Final Percentage

A > 90

80 < B < 90

70 < C < 80

60 < D < 70

F < 60

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

**MasteringPhysics:** The course number for mastering physics is MPMONTGOMERY92514. From mastering physics there will be 14 homework assignments throughout the semester (1 per chapter and an introduction). Homework will be submitted through MasteringPhysics. The due date will be displayed in MasteringPhysics and announced in class.

**Lab assignments:** Labs are mandatory and are part of your grade. ***According to University policy, if you fail the lab section of the class, you will also automatically fail the course.***  Labs will be held in Science 114. Be sure to have a pencil, a calculator, and your lab manual with you. Labs are led by a graduate student assistant. If you have questions about lab, first ask the lab assistant. If the problem is not resolved to your satisfaction, you should then talk to me. More details on labs will be discussed on your first lab date.

# COURSE AND UNIVERSITY PROCEDURES/POLICIES

## Course Specific Procedures

1. Cell phone use is only allowed if used for class activities.

2. **Eating is not allowed**. However, covered drinks are allowed.

3. Attendance will be taken at the beginning of class.

4. The instructor must be notified by email (kent.montgomery@tamuc.edu) about any excused absences **no later than 24 hours after the missed class**. Even if you choose to notify the instructor in person, you **must still follow up with email** within 24 hours of the missed class. 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.

5. You are responsible for obtaining notes and class announcements from missed classes.

6. Excessive absences may result in being dropped from the course.

7. When emailing the instructor, include the **course and section number in the subject line**.

8. 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.

# COURSE CALENDAR

* **Labs** begin second day of class
* **Tests (Tentative Schedule)**
  + *First Test – Monday June 13th* Chapters 1-4
  + *Second Test – Tuesday June 21rd* Chapters 5--7
  + *Third Test – Tuesday June 28th* Chapters 8-10
  + *Fourth Test – Tuesday July 5th* Chapters 11-12
* **Final exam**: Thursday, July 7th Comprehensive