



PHYS 2425.001 University Physics I

COURSE SYLLABUS: Spring 2020

INSTRUCTOR INFORMATION

Instructor: **Dr. Kent Montgomery**

Office Location: Science Building Room 106

Office Hours: M-R 9 to 10 am

Office Phone: 903-886-5488

University Email Address: kent.montgomery@tamuc.edu

Preferred Form of Communication: **email is the best way to get a hold of me**

Communication Response Time: I will respond within 24 hours but not on weekends

Graduate Teaching Assistant: Shandi Groezinger

Learning Assistants: Ruth Leach

COURSE INFORMATION

Textbooks: MasteringPhysics with Knight, Physics for Scientists and Engineers, 4th edition. You have the option of buying MasteringPhysics with etext only (ISBN-13: 978-0134110561) or MasteringPhysics with etext and traditional textbook (ISBN-13: 978-0133953145).

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.

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.

The syllabus/schedule are subject to change.

COURSE REQUIREMENTS

Instructional Methods, Activities and Assessments

This class is being taught in studio mode. Studio mode is a student-centered active learning environment that blends lecture time with lab time. Lecture and/or readings will be used to introduce topics. Students are encouraged to ask questions during lecture. However, the majority of class time will be focused on group activities. Activities will include conceptual work, labs, and problem solving. Activities will be completed in groups of 3-4. The instructor will assign groups. Groups will be changed 2-3 times during the semester.

Physics education research has shown that students learn best when actively engaged in class. Studio mode has been implemented at many universities and has been found to have positive impacts on conceptual understanding and problem-solving ability.

GRADING

Grades will be based on four components:

3 midterm Exams	40 %
Final Exam	20 %
Mastering Physics Homework	15 %
Tutorials, labs and activities	25 %

Grading scale: Final Percent

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

Exams: There will be three midterms and a final. Your exam grade will be computed from the average of your *midterm* exam grades. The exams will be weighted equally (13.3 percent each). The final will be cumulative and accounts for 20%. See the course outline for exam dates. 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 **MPMONTGOMERY2845410**. 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.

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Tutorials, labs, activities: 4 or 5 homework assignments will be assigned from the tutorial homework. Homework is due at the beginning of class. Late homework will not be accepted. In-class work will sometimes be graded depending on the assignments. Assignments will be completed as a group, but your effort will determine your individual score. These in-class assignments will include labs, computing exercises and some programming. **There will be no makeup of labs or in-class activities.** Your lowest in-class assignment grade will be dropped

TECHNOLOGY REQUIREMENTS

LMS

All course sections offered by Texas A&M University-Commerce have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are technical requirements

LMS Requirements:

<https://community.brightspace.com/s/article/Brightspace-Platform-Requirements>

LMS Browser Support:

https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm

YouSeeU Virtual Classroom Requirements:

<https://support.youseeu.com/hc/en-us/articles/115007031107-Basic-System-Requirements>

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 TAMUC campus open computer lab, etc.

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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>

COURSE AND UNIVERSITY PROCEDURES/POLICIES

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.

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/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx>

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>

TAMUC Attendance

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

<http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx>

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

Academic Integrity

Students at Texas A&M University-Commerce 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:

The syllabus/schedule are subject to change.

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

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

[Graduate Student Academic Dishonesty 13.99.99.R0.10](#)

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.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

Texas A&M University-Commerce

Gee Library- Room 162

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

Fax (903) 468-8148

Email: studentdisabilityservices@tamuc.edu

Website: [Office of Student Disability Resources and Services](#)

<http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/>

Nondiscrimination Notice

Texas A&M University-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.

Campus Concealed Carry Statement

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 the [Carrying Concealed Handguns On Campus](#) document and/or consult your event organizer.

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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.

COURSE OUTLINE / CALENDAR

Content schedule

Exam 1 Chapters 1-4 Kinematics
Exam 2 Chapters 5-8 Forces
Exam 3 Chapters 9-12 Momentum, Energy, Work, and Rotation
Chapter 13 Gravity on Final with Comprehensive material

Exam dates (Tentative)

Exam 1 Wed., February 12th
Exam 2 Wed., March 25th
Exam 3 Wed., April 22nd
Final Exam Fri., May 8th from 10:30-12:30

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