



PHYS 2425.01W

University Physics 1

COURSE SYLLABUS: Fall 2020

INSTRUCTOR INFORMATION

Instructor: Dr. Robynne Lock
Office Location: Primarily working remotely, STC 238
Office Hours: TBA
Office Phone: 903-468-8767
Office Fax: 903-886-5480
University Email Address: robynne.lock@tamuc.edu
Preferred Form of Communication: Email
Communication Response Time: 48 hours

COURSE INFORMATION

Materials – Textbooks, Readings, Supplementary Readings

PHYS 2425 course packet: Available from University bookstore OR <https://store2.van-griner.com/product/phys2425-redemption-code-ebook/>

Textbook will be made freely available on D2L – Introductory Physics: Building Models to Describe Our World by Ryan Martin, Emma Neary, Joshua Rinaldo, and Olivia Woodman

Course Description

This is a calculus-based introductory physics course in mechanics. Topics include momentum, dynamics, energy, and kinematics.

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.

The syllabus/schedule are subject to change.

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

1. Students will be able to 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 to describe a physical situation and calculate the motion of an object using these quantities.
4. Students will be able use energy to describe a physical situation and calculate the motion of an object using these quantities.

COURSE REQUIREMENTS

Minimal Technical Skills Needed

Students should be able to use D2L (myLeo Online), view videos on YouTube, use a calculator, use Excel and/or a graphic calculator or app, convert work to a pdf, take screenshots, use a variety of online communication methods such as Zoom, Discord, D2L, and email.

Instructional Methods

Course materials will be posted weekly. Assignments will typically be due exactly 1 week after they are posted at 11:59 pm. While I will be posting instructional videos and textbook excerpts, true learning occurs through interaction with a community. I want us all to do our best to work together as a community given the current circumstances. Part of this is that I will be assigning groups for you to work in the entirety of the semester. We will also have synchronous classes in Zoom. You are expected to have work in progress that you can discuss with your group and instructors that you bring to Zoom sessions. While class is MWF 2-4, you and your group will only be required to attend MWF 2-3 or 3-4. You and your group will be placed in a breakout room to work during Zoom sessions and instructors will periodically check in on you. If circumstances prevent you from attending during regular class time, you must contact me to make alternate arrangements. The class will be able to communicate with each other outside of normal class time through a variety of methods including chatting on a Discord server and participating in D2L discussion boards.

Student Responsibilities or Tips for Success in the Course

Students should keep handwritten notes and plans. Handwriting helps your brain process information. I recommend that on Mondays you make a list of everything you need to do for the class that week by viewing the week in D2L. When watching videos, take notes and pause the video to give yourself time to process. Work examples with me. I also recommend that you organize your notes every week or 2 to look for connections between concepts and connections to the learning standards described in the Grading section.

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GRADING

We will be using standards based grading. This means that we have a set list of standards (learning goals), and you have to show me that you have learned what is described by each of those goals. Each goal is worth a certain portion of your grade. I will give you the detailed goals with evaluation criteria at the beginning of each unit, and they will be posted on D2L.

For each goal, you will be assessed on the following scale:

0: Not assessed. Lack of understanding. There was a clear lack of understanding.

1: Approaching understanding. The student needs some help in the concept or is missing some parts of the explanation.

2: Meets or exceeds expectations. The student understands the content and can explain in detail. The student could teach or explain this concept to another student. The student can create analogies or connections to different areas.

Assessments will take the form of exams, assignments, and other forms as needed. You will be able to be reassessed on learning goals after the relevant exam. More information about assessments and learning goals will be posted on D2L.

The standards are divided into the following categories:

Topics

9% Momentum and Impulse in 1D

9% Momentum and Impulse in 2D

9% Dynamics Part I

9% Dynamics Part II

9% Work and Energy

9% Kinematics

Skills

10% Learning community

9% Problem solving process

9% Synthesis of concepts

9% Learning strategies

9% Units and vectors

The first 6 standards emphasize specific content areas in physics and constitute 54% of the course grade. The remaining 5 standards emphasize skills useful in any area of physics and constitute 46% of the course grade.

Scores on the individual standards will be averaged together to find the score in each category.

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Grading scale:

90 points < A

80 points < B < 89 points

70 points < C < 79 points

60 points < D < 69 points

F < 60 points

Assessments

All assignments are to be completed to become competent at physics and meet the standards. Assignments include:

- Exams: Primarily used to assess topics, problem solving process, and units and vectors.
- Tutorials, problem-solving activities, and labs: Primarily used to assess learning strategies
- Participating in Discord, D2L, and Zoom discussions: Primarily used to assess learning community
- Reflection and organization activities: Primarily used to assess synthesis of concepts and learning strategies

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.

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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.

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

The best method to reach the instructor is through email. You can send an email to robynne.lock@tamuc.edu with **PHYS 2425 in the subject line**. If you do not receive a response within 48 hours, send a reminder email.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

1. Be compassionate, respectful, and forgiving. We are all under a lot of stress right now. Let's look out for each other.
2. Keep an open line of communication with me. Talk to me if you:
 - a. Need help with *anything*.
 - b. Are having trouble keeping up with the work or getting your work in on time. I can make reasonable accommodations.
 - c. Want an extra challenge.
 - d. Are having problems with your group.
 - e. Haven't spoken with me for over a week.
 - f. Are having problems with technology or internet access.
3. ASK FOR HELP
4. Be honest. Don't plagiarize. Don't try to find answers on sites like Chegg. Do your own work. For all assignments with the exceptions of exams, you can work together, but that doesn't mean copying each other's work.
5. Try to be okay with frustration. If you're frustrated, that means you're learning. You can take a break. You can talk to classmates or instructors. You can sleep on it.

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6. If you have questions about assignment grading (with the exception of exams), contact the GAT first.

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).
<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:

[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>

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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.

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.

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Resources for Students

Life can be hard. I understand that you have a life beyond this class. I am here to support you as best I can, but there are many offices on campus that can help you.

Mental health issues

Counseling is available to all students for free. They have virtual counseling available.

Call or drop by in-person to make an appointment
Halladay Student Serv. #204
903-886-5145

Student conduct issues

If you believe a student has violated the code of conduct, you can report it here:
<https://bit.ly/33WRMOK>

Violations of the code of conduct include altercations, disorderly conduct, disruptive activity, discrimination, and sexual harassment.

Student of concern/distress

If there is a student you are concerned about for reasons such as threatening behavior, talk of suicide, or homelessness, you can report those concerns using the CARE Report Form:
<https://bit.ly/35VC5cf>

Concerns about the university

You can report any concerns you have about the university to:
StudentConcern@tamuc.edu
The Student Concern form is available at: <https://bit.ly/33Qv1f9>

Title IX: Sexual harassment and assault

If you have experienced or are aware of sexual harassment, sexual misconduct, domestic violence, dating violence, or stalking, you can report this to the Title IX office.

TitleIX@tamuc.edu
McDowell Administration (BA) Building 259
903-468-3104

Title IX makes it clear that violence and harassment based on sex and gender are Civil Rights offenses subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national

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origin, etc. If you or someone you know has been harassed or assaulted, you can find the additional resources here:

Crisis center of NorthEast Texas: <http://www.ccnex.org>

Know your IX: <http://knowyourix.org>

End rape on campus: <http://endrapeoncampus.org>

Clery Center for Security on Campus: <http://clerycenter.org>

Not Alone: <https://www.notalone.gov>

Don't know where to go?

If you need help and you do not know where to go, Campus Life and Student Development can direct you to the most relevant office.

Campuslife@tamuc.edu
Halladay 201
903-886-5195

COURSE OUTLINE / CALENDAR

Content schedule

Weeks 1-3 (8/24-9/13)	Momentum and impulse in one dimension
Weeks 4-5 (9/14-9/27)	Momentum and impulse in two dimensions
Weeks 6-7 (10/12-10/11)	Dynamics Part I
Weeks 8-9 (10/12-10/25)	Dynamics Part II
Weeks 10-12 (10/26-11/8)	Work and Energy
Weeks 13-15 (11/9-12/4)	Kinematics
Week 16 (12/7-12/10)	Finals week

Assessment/Exam due dates

1: Momentum in 1D	9/14
2: Momentum in 2D	9/28
3: Dynamics Part I	10/12
4: Dynamics Part II	10/26
5: Work and Energy	11/16
6: Kinematics	12/4
Final	12/10

Assessment/Exam dates are tentative and may be adjusted depending on the pace at which we cover material.

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