



## Phys 2425.01W University Physics I

COURSE SYLLABUS: Summer II 2024

### INSTRUCTOR INFORMATION

Instructor: Dr. Kurtis A .Williams

Office Location: McFarland Science Building (STC) 106A

Office Hours: MTWTh 10-11am

Office Phone: (903) 886-5488

University Email Address: [Kurtis.Williams@tamuc.edu](mailto:Kurtis.Williams@tamuc.edu)

Preferred Form of Communication: **email or Discord**

Communication Response Time: End of the following business day

Preferred Pronouns: He/him/his

### COURSE INFORMATION

Materials – Textbooks, Readings, Supplementary Readings

Textbook(s) Required:

- MasteringPhysics for Physics for Scientists and Engineers, 4<sup>th</sup> Ed. by Knight.  
Preferred ISBN: 9780134110578

**Important Notes:** *You will need both the textbook and Mastering to succeed (in other words, pass) this course.*

Your cheapest purchase option will be to buy Mastering + eBook directly from the publisher. Instructions on how to do this are in the course D2L shell under Things To Do First. If you are given an option as to how long of a subscription to get, go short (6 weeks or so). – My apologies, I cannot see the student purchase screen from Pearson until the course begins to give you better details.

You can also rent the textbook (Chegg or Amazon or online will certainly be cheaper than the university bookstore), but you will still have to purchase Mastering on top of that rental fee; in almost all cases, this route is more expensive than just buying the electronic bundle from Pearson.

*The syllabus/schedule are subject to change.*

### Software Required

- Subscription to Mastering (discussed under textbook)
- Web browser compatible with PHET (see Lab and Tutorials section below).



1Scan the QR  
code to get  
CamScanner app

### Optional Texts and/or Materials

- Discord
- CamScanner app (<https://www.camscanner.com/>)
  - No need to pay for add-ons
- Headphones / ear buds for listening to online videos

## Course Description

*Hours: 4*

*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.*

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

## COURSE REQUIREMENTS

### Minimal Technical Skills Needed

You will need to be able to access myLEO Online (D2L), our learning management system, and be able to learn how to use it. You should also be able to read PDF documents. You should be able to create either Microsoft Word documents (.docx) or plain text files. You must be familiar with Internet usage and safe browsing. You need to be able to watch YouTube videos on a computer. You also need to be able to create and account on Mastering and learn how to complete homework problems on that site.

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## Instructional Methods

### Online Course

This course is a totally online course. All homework, labs, tutorials and tests will be assigned and turned in through D2L Brightspace. You 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.

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. I prefer if you use an app that converts multiple pictures to a single PDF file for upload; I suggest the CamScanner app (QR code on previous page). It is free and easy to use and makes really nice quality PDFs.

Students are expected to read assignments in the textbook and watch the lecture videos daily, as new material will continue to be posted throughout the class.

### Course pace

While I realize that some online students prefer to complete a course as fast as possible and others like to wait several weeks and then do as much work as possible, these methods won't work with this course. This course has a LOT of information, a LOT of new concepts that require work to learn, and each concept builds on a previous one.

The course work is spread kinda irregularly throughout the five-week Summer II semester. I know this looks annoying, but I want to spread the work out as much as possible to try and prevent from overwhelming you.

You should set aside at least two hours *every single day* to work on the course. Set a time in your personal calendar, block that space off, and guard it jealously. Then use that time to do the course work.

### Homework, aka Mastering

Mastering Physics, or "Mastering" for short, is an online homework platform that gives you immediate feedback on your work to help you improve. Yes, it is a bit annoying to use at first, but you will get used to it. If I had you do all of your work with paper and pencil, it would take me weeks to get it all graded, which defeats the purpose of homework – to help you learn!

Instructions for registering for Mastering Physics are in D2L under the module "Things to do First!" There is also an introductory assignment (yes, it is graded!) there to teach you how to use Mastering.

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The course ID for our section is: **williams21741**. You will need this to register.

There will be 13 total Mastering assignments over our five weeks, the introduction and one for each of the 12 chapters we do. Due dates are displayed in Mastering and in D2L.

The grading policy for each Mastering assignment is shown in each assignment. You may get multiple attempts to answer a question correctly; however, submitting an incorrect answer will cost you some credit. Late homeworks are penalized 10% per day, up to 5 days beyond the due date. After 5 days, you will receive a zero on the assignment. **All homework must be completed on or before August 9; any incomplete homeworks will receive a zero.**

The following are considered cheating and will not be tolerated: Directly copying text from a website or other printed source, obtaining copies of solutions to homework questions (whether from past students, solution manuals, other websites, generative AI assistance, or other sources), directly copying another student's work, etc. See the section on "Academic Integrity" below for full details.

You are allowed, in fact you are encouraged, to work together on assignments. Note that different students may get different numbers for a specific problem, but the process of solving each problem will be the same. It is my opinion that it is far more important to learn how to do a problem than to get the correct answer, and working together helps the whole team learn.

## Labs and Tutorials

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>.

These simulations mostly use a program called CheerpJ to run. This is not a program you have to download, but it only works with the following devices and web browsers:

### CheerpJ System Requirements

- Internet access
- Windows: Chrome, Edge
- Mac: Chrome, Safari
- Chromebook: Chrome
- iPad: Safari (see sim-specific compatibility)
- **Mobile phones: not recommended**

Most students who have difficulty using the simulations are either trying to use mobile devices or a non-supported browser. My suggestion: Do simulations on a desktop, laptop, or chromebook only and use Chrome browser.

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Labs and tutorials generally have a Word or PDF worksheet for you to use. For many you can simply type your answers into the worksheet, unless you are asked to draw or sketch something. In these cases please answer on a separate sheet of paper and upload a PDF of your answers.

## Tests:

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 with prior permission from me.

- For the online exams you may use a formula sheet (equation sheet), your own notes, and a calculator.
- You may not use the textbook, the internet, any other books, etc.
- You must work on the exam alone – you may not discuss the exam with other students prior to the due date, you may not use any sort of communication like email, Zoom, texting, Chat GPT or other generative AI, Discord, talking, writing, semaphore, ESP, etc., etc., etc. to communicate with any other human during or after the exam.
- The exams are untimed, but I suggest a time limit of two hours. My experience teaching this class shows that if you take longer than this, your grade does not significantly improve.
- Exam questions will be made available through D2L; you should answer on separate sheets of paper and take pictures, create a PDF, and upload them to D2L.

## Extra Credit:

The *only* extra credit available in this course are the options below; you may pick one. If you fully complete an option, you will earn 2% extra credit on your final grade. You may only earn extra credit for once. There are no other options for extra credit. **All extra credit must be completed and turned in by 11:59pm on Saturday, August 9.**

**Visit a Science Museum:** You may visit any other planetarium or science-related museum. Museums oriented solely at children only count if you include a picture of you and a child together at the museum. Please send me a picture of your ticket stub and email me two paragraphs: one summarizing the show/visit, and a second telling me something specific about the show/visit that you found interesting and why.

**Visit the A&M-Commerce Planetarium:** The A&M-Commerce Planetarium is located in the Science Building on the Commerce campus. There are public shows every Friday at 7pm and 8pm; usually 7pm is more child-oriented and 8pm is for all ages. Cost is \$5. Go to a show, take a selfie with the ticket takers, and upload that to D2L for your extra credit. Show times are here: <https://www.tamuc.edu/planetarium/show-schedule/>

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## **Student Responsibilities or Tips for Success in the Course**

. Students who do well in this course share most of the following common habits:

- Checking MyLeo often for announcements and assignments
- Beginning assignments as soon as they are posted and pacing themselves to finish the assignment by the due date
- Scheduling at least two to three hours every day to work on the course
- Completing all assignments on time
- Asking the instructor for help and advice early in the semester
- Taking responsibility for their own grade

## **GRADING**

Grades will be based on four components:

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

Final grades in this course will be based on the following scale:

A = 90%-100%

B = 80%-89%

C = 70%-79%

D = 60%-69%

F = 59% or Below

Grading is on an absolute scale with no competition. If you all earn an A, you all get an A. I may “curve” grades for specific assignments at my discretion; your percentage earned will never go down if I apply such a curve. Your current grades are available through the gradebook on D2L / myLEO Online – look for “Total Calculated Grade.” The gradebook on Smartwork5 is not official.

Within each category, assignments are weighted equally. Your lowest discussion score and lowest homework assignment will be automatically dropped, but all exams will count.

## **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

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

Zoom Video Conferencing Tool

[https://inside.tamuc.edu/campuslife/CampusServices/CITESupportCenter/Zoom\\_Account.aspx?source=universalmenu](https://inside.tamuc.edu/campuslife/CampusServices/CITESupportCenter/Zoom_Account.aspx?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](mailto: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.

## 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

#### Email:

I can be reached by email at [Kurtis.Williams@tamuc.edu](mailto:Kurtis.Williams@tamuc.edu). It may take me up to 24 hours to send you a response. If you don't hear back from me in that time, please send another email or give me a call.

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Notice: If you are having trouble with an assignment and email me within 24 hours of the deadline, I might not be able to get back to you before the assignment is due. Late penalties will not normally be waived in these cases.

### **Course Announcements:**

Announcements and important course updates will be posted on MyLeo Online, and I expect you will read those within a reasonable time frame. You can set up SMS or email notifications of new announcements, as well as many other course updates, through MyLeo Online. Click on your name at the top of the page and select “Notifications” from the resulting menu.

### **Office Hours:**

Office hours are a times that I set aside in my schedule for interactions with you. These times are great for you to ask me questions about the course, about materials, ask for advice and study tips, or just talk about whatever. Since this is a fully online course, I realize it is likely not convenient for you to come to my real-world office, so feel free to use email for these same purposes any time of the day. The only problem with email interaction is that it does take me time to see and respond to emails.

If you are going to stop by my real office, please try and let me know in advance so that I can be sure to be available.

### **Discord:**

I have set up a Discord channel for this class. Use of it is not required, and I will permanently ban anyone who misuses it.

### **Other Social Media:**

Please don't follow me on other social media until after you've graduated. It's not all that exciting anyway.

### **“Attendance” Policy**

While this class will have no required synchronous (live online) meetings, you will be required to participate in online discussions. As such, you should be active in the class weekly. If life happens and you will be unable to log on for an extended period of time (like more than 1 week), please contact me in advance to discuss options.

Please note that family vacations are not considered excusable events.

### **Assignment Policy and Due Dates**

Assignments and due dates will be posted in the main page for each week. Submission requirements for each assignment will also be given on that page.

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## **Dropping The Course**

You may drop this course by logging into your myLEO account and clicking on the hyperlink labeled 'Drop a class' from among the choices found under the myLEO section of the Web page.

## **Incompletes**

I only offer incompletes in extraordinary circumstances. Any student interested in an incomplete should contact me as soon as possible after the situation arises, and should keep in mind that I am not required to give you an incomplete and so may not offer you the opportunity. You should also know that you only have access to a myLEO Online course for two weeks following the final day of term.

## **Technical Issues**

Personal computer 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, an Internet cafe, or a coffee shop, etc.

## **Administrative Withdrawal**

Although I have the right to drop you for excessive absences, I won't do so. You have a right to get an F if you decide to quit working but don't withdraw.

## **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.

## **COURSE AND UNIVERSITY PROCEDURES/POLICIES**

### **Course Specific Procedures/Policies**

#### **Sexual Harassment and Violence**

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 origin, etc.

If you or someone you know is a victim of harassment, stalking, domestic violence, sexual assault, or related crimes, has been harassed or assaulted, here are some resources for you:

#### **24/7 Resources**

- National Domestic Awareness Hotline: 1-800-799-SAFE (7223)
- National Sexual Assault Hotline: 1-800-656-4673

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- National Suicide Prevention Lifeline: 988

## **Campus Resources**

- **Call 911 in emergency situations**
- If you or someone you know has been impacted and needs support, email: [VictimSupport@tamuc.edu](mailto:VictimSupport@tamuc.edu) (monitored Monday-Friday, 8am-5pm)
- Victim Advocacy and Support: <https://www.tamuc.edu/student-advocacy-support/victim-support-services/>
- How to Help and Report: <https://www.tamuc.edu/student-advocacy-support/victim-support-services/>
- How to Report Concerns About a Fellow Student: [https://cm.maxient.com/reportingform.php?TAMUCommerce&layout\\_id=20](https://cm.maxient.com/reportingform.php?TAMUCommerce&layout_id=20)
- University Title IX Compliance Office: <https://www.tamuc.edu/titleix/>
- University Title IX Contact: Amanda Berry, 903-886-5991, [titleix@tamuc.edu](mailto:titleix@tamuc.edu)
- University Police Department Sexual Assault pages: <https://www.tamuc.edu/university-police-department/crime-prevention/>
- University Counseling Center: <https://www.tamuc.edu/counseling-center/>
- Campus police email: [upd@tamuc.edu](mailto:upd@tamuc.edu)

## **External resources:**

Crisis center of Northeast Texas: <http://www.cnetx.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: <http://changingourcampus.org/about-us/not-alone/>

## **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 [Procedures 13.99.99.R0.01](#)

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

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<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](#)  
[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**

Texas A&M University-Commerce

Velma K. Waters Library Rm 162

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

Fax (903) 468-8148

Email: [studentdisabilityservices@tamuc.edu](mailto: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

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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.

## **A&M-Commerce Supports Students' Mental Health**

The Counseling Center at A&M-Commerce, 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](http://www.tamuc.edu/counsel)

## **AI use policy**

Texas A&M University-Commerce 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

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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

## **COURSE OUTLINE / CALENDAR**

### **Tests (Tentative Schedule)**

- First Test – Thursday July 18th Chapters 1-4
- Second Test – Friday July 26th Chapters 5--8
- Third Test – Tuesday August 6th Chapters 9-12
- Final exam -- Thursday, August 8th Comprehensive

***All assignments, exams, and extra credit must be completed and turned in on or before August 9.***

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