



WACO, TEXAS

**COURSE SYLLABUS
AND
INSTRUCTOR PLAN**

College Physics I

PHYS – 1401 – 03

Professor Laura Wright

NOTE: This is a 16-week course.

COVID 19 Notice:

McLennan Community College is committed to providing you with every resource you need to reach your academic goals including your safety. We will continue to monitor the evolving situation with COVID 19 and adjust our safety guidelines to make sure we offer a safe environment for you and our faculty. Please make sure to consult your faculty and the MCC website at <https://www.mclennan.edu/crisis-management/coronavirus-updates/index.html> on any changes to these guidelines.

Course Description:

Fundamental principles of physics, using algebra and trigonometry; the principles and applications of classical mechanics and thermodynamics, including harmonic motion, mechanical waves and sound, physical systems, Newton's Laws of Motion, and gravitation and other fundamental forces; with emphasis on problem solving. Semester Hours 4 (3 lec/3 lab)

Prerequisites and/or Corequisites:

Prerequisite: MATH 1316, 2412 or 2413 with a grade of C or better.

Instructor Information:

Instructor Name: Laura Wright

MCC Email: lwright@mclennan.edu *I respond fastest to email

Office Phone Number: 254-299-8419

Office Location: S 246 or Zoom Meeting ID: 837-729-4618

Office/Teacher Conference Hours: Mondays & Wednesdays 2-4pm, Thursdays 3-4pm

**I generally try to answer emails and calls as quickly as possible, however please give me at least 24 hours to respond. Emails and calls sent on weekends may not receive a response until the following Monday.*

This course meets every Monday and Wednesday from 11:10am – 2:15pm in Room 230 of the Science building

Required Text & Materials:

- *Physics*, 5th Edition
James S. Walker
Pearson Addison-Wesley
ISBN: 9780321976444 (textbook only)
ISBN: 9780134019734 (textbook with *Mastering Physics Student Access Kit*)
- *Mastering Physics Student Access Kit*
Pearson Addison-Wesley
ISBN: 9780134019666
(License can be purchased online through www.masteringphysics.com)
- A “scientific” calculator: This means something that can handle exponents, trig functions, and logarithms. Must not have camera or web access (you cannot use your phone for quizzes and tests)
- Reliable access to the internet. Homework assignments can be accessed online through Mastering Physics, and other materials will be available through Brightspace

MCC Bookstore Website: <http://www.mclennan.edu/bookstore/>

Methods of Teaching and Learning:

Students will learn through lecture and reading, as well as through work on homework, labs, and exams. Additional methods may be used as opportunities present themselves.

Course Objectives and/or Competencies:

Upon successful completion of this course, the student will be able to:

1. Determine the components of linear motion (displacement, velocity, and acceleration), and especially motion under conditions of constant acceleration. (*Chapters 2&4*)
2. Apply Newton's laws to physical problems including gravity. (*Chapter 5&6*)
3. Solve problems using principles of energy. (*Chapters 7&8*)
4. Use principles of impulse and linear momentum to solve problems. (*Chapter 9*)
5. Solve problems in rotational kinematics and dynamics, including the determination of the location of the center of mass and center of rotation for rigid bodies in motion. (*Chapter 10*)
6. Solve problems involving rotational and linear motion. (*Chapter 10*)
7. Describe the components of a wave and relate those components to mechanical vibrations, sound, and decibel level. (*Chapter 14*)
8. Demonstrate an understanding of equilibrium, including the different types of equilibrium. (*Chapter 11*)
9. Discuss simple harmonic motion and its application to quantitative problems or qualitative questions. (*Chapter 13*)
10. Solve problems using the principles of heat and thermodynamics. (*Chapters 16, 17, and 18*)
11. Solve basic fluid mechanics problems. (*Chapter 15*)
12. Demonstrate techniques to set up and perform experiments, collect data from those experiments, and formulate conclusions from an experiment. (*Laboratory*)
13. Record experimental work completely and accurately in laboratory notebooks, and communicate experimental results clearly in written reports. (*Laboratory*)

Course Outline or Schedule:

This calendar is subject to change. In the event that I need to make changes to the schedule, I will notify the class via MCC email, Brightspace announcement, and in class as soon as I

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possibly can. Please make sure you check email and Brightspace regularly in the event of a change.

Week	Topic	Textbook	What's Due?
Week 1	Mon, Aug 22 – Introduction to Physics Wed, Aug 24 – Motion in 1 Dimension <i>Lab 1: Measurements</i>	Ch. 1 & 2	HW 1 due Sunday, Aug 28 @11:59pm
Week 2	Mon, Aug 29 – Kinematics/ Free Fall Wed, Aug 31 – Vectors/Motion in 2D <i>Lab 2: Free Fall</i>	Ch. 2 & 3	HW 2 due Sunday, Sep 4 @11:59pm
Week 3	<i>Mon, Sep 5 – No Class, Labor Day</i> Wed, Sep 7 – Projectiles <i>Lab 3: Vectors</i>	Ch. 4	HW 3 due Sunday, Sep 11 @11:59pm
Week 4	Mon, Sep 12 – Newton's Laws Wed, Sep 14 – Forces and Free Body Diagrams <i>Lab 4: Projectiles</i>	Ch. 5	HW 4 due Sunday, Sep 18 @11:59pm
Week 5	Mon, Sep 19 – Friction, Strings, Springs Wed, Sep 21 – TEST 1 (Ch. 1-5)	Ch. 6	HW 5 due Sunday, Sep 25 @11:59pm
Week 6	Mon, Sep 26 – Work, Kinetic Energy, Power Wed, Sep 28 – Potential Energy, Conservation of Energy <i>Lab 5: Springs</i>	Ch. 7 & 8	HW 6 due Sunday, Oct 2 @11:59pm

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Week 7	Mon, Oct 3 – Linear Momentum and Impulse Wed, Oct 5 – Conservation of Momentum, Collisions <i>Lab 6: Collisions</i>	Ch. 9	HW 7 due Sunday, Oct 9 @11:59pm
Week 8	Mon, Oct 10 – Rotational Kinematics Wed, Oct 12 – Rotational Energy <i>Lab 7: Rotational Motion</i>	Ch. 10	HW 8 due Sunday, Oct 16 @11:59pm
Week 9	Mon, Oct 17 – Rotational Dynamics and Static Equilibrium Wed, Oct 19 – Gravity <i>Lab 8: Static Equilibrium</i>	Ch. 11 & 12	HW 9 due Sunday, Oct 23 @11:59pm
Week 10	Mon, Oct 24 – Fluids, Archimedes' Principle Wed, Oct 26 – TEST 2 (Ch. 6 – 12)	Ch. 15	HW 10 due Sunday, Oct 30 @11:59pm
Week 11	Mon, Oct 31 – Bernoulli's Equation Wed, Nov 2 – Temperature and Heat <i>Lab 9: Archimedes' Principle</i>	Ch. 15 & 16	HW 11 due Sunday, Nov 6 @11:59pm
Week 12	Mon, Nov 7 – Ideal Gases and Phase Equilibrium Wed, Nov 9 – Latent Heat and Phase Changes <i>Lab 10: Calorimetry</i>	Ch. 17	HW 12 due Sunday, Nov 13 @11:59pm
Week 13	Mon, Nov 14 – Thermodynamics Wed, Nov 16 – Heat Engines and Refrigerators	Ch. 18	HW 13 due Sunday, Nov 20 @11:59pm

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	<i>Lab 11: More Calorimetry</i>		
Week 14	Mon, Nov 21 – Test 3 Review Wed, Nov 23 – No Class, Thanksgiving Break		HW 14 due Sunday, Nov 27 @11:59pm
Week 15	Mon, Nov 29 – TEST 3 (Ch. 12, 15-18) Wed, Dec 3 – Final Exam Review		
Week 16	FINAL EXAM – Monday, December 5 @ 11:10 am – 1:10 pm in Science 230		

Course Grading Information:

Category	Percent
Homework	20%
Quizzes	5%
Labs	25%
Tests (3 Regular averaged together)	30%
Final Exam	20%

A: 90%+ B: 80% – 89% C: 70% – 79% D: 60% – 69% F: 0% – 59%

Homework: Homework assignments are involved numeric problems designed to challenge you to gain a deeper understanding of the course material. Homework will be completed online and graded utilizing Mastering Physics. The link to your course is accessed through Brightspace. Homework assignments will generally be due every Sunday at 11:59pm, unless stated otherwise. The Monday after the homework is due, we will go over some of the more challenging homework problems from that assignment during the lab period. The lowest homework grade will be dropped at the end of the semester.

Quizzes: There will be at least 5 pop quizzes in class. Pop quizzes will be open note and open book; however, internet capable devices (phone, tablet, etc) will not be allowed. Quizzes may be given at any time during the class period. If you are not present in class for any reason during a pop quiz, you will not be allowed to make it up.

Lab: The lab grades will consist of activities to be completed during the lab time. You can expect to have a lab every day after each lecture, except for test days, there will be no lab afterward. Additionally, the lab period before a test will be used as a review session for the test; however, the review itself will not be graded. I will drop the lowest lab grade at the end of the semester.

Exams: There will be three major exams during the semester. Exam questions will come from the material covered in class, the textbook, and laboratory exercises. The exams will be closed note and closed book. Internet capable devices (phones, tablets, etc) will not be allowed. You will have 120 minutes to complete each exam.

Final Exam: The final exam is comprehensive and has the same format as the other exams. The final exam will be closed note and closed book. Internet capable devices (phones, tablets, etc) will not be allowed. You will have 120 minutes to complete the final exam.

Late Work, Attendance, and Make Up Work Policies:

Attendance: Attendance for this course will be taken during every class session, at 11:10am. If you are not in class when attendance is taken, you will be marked absent. If you arrive on time, but leave early without permission and without finishing your work, you will also be marked absent.

Excused Absence Policy: MCC allows for “excused” absences caused by (1) authorized participation in official College functions, (2) personal illness (this also includes if you have to care for a sick child), (3) an illness or a death in the immediate family, or (4) the observance of a religious holy day. It is your responsibility to let me know the reason for an absence the day you return to campus and provide sufficient documentation (doctor’s note, email from coach, etc.).

Late Work Policy: For homework assignments only, you will receive a 5% penalty for each day a homework assignment is late, regardless of the reason it is late. Quizzes, and lab assignments will not be accepted, for any reason. If you miss a lab, quiz, or test on the dates listed in the calendar above due to an MCC excused absence reason, you must contact me as soon as possible (before any applicable lab, quiz, test dates, if possible) and provide acceptable documentation as listed above for your absence so that I can make arrangements for you to make up the affected assignment(s). Absences without documentation or for reasons that do not fall under the above will not be considered for makeup and you will receive a zero for each affected assignment.

Drop Policy (student-requested): The last date for student-initiated withdrawals from this course is **Tuesday, October 25 before 5pm**. If you wish to withdraw from this course to receive a grade of “W,” you must send me an email from your MCC student account stating, very clearly, “Please withdraw me from PHYS-1401-03.” If your language is vague, or if the request comes from any form of communication other than your MCC student email account, I cannot

drop you. Once you are dropped, it is very difficult to reinstate you, so please make sure you are certain you wish to drop before making the request. Any drop requests received after 5pm on October 25 will only be done in extreme, life-changing circumstance that usually involve withdrawing from MCC entirely.

Drop Policy (due to absences): According to MCC policy, you are not eligible to receive credit for the course if you miss 25% of class time, which for this course, is 8 class periods worth of absences (consecutive or non-consecutive).

- *If the 8 absences occur on or before the drop date of October 25, you will be automatically withdrawn from the course and receive a grade of “W.”*
- *If the 8th absence occurs after October 25, you will not be withdrawn. However, you will receive an automatic grade of “F” for the course, and no assignments submitted after the date of the 8th absence will be graded.*

Course Covid Policy: The guidelines are constantly changing on when to quarantine due to exposure or testing positive for Covid. Therefore, whether or not an absence is excused, and/or whether you should quarantine will be evaluated on a case-by-case basis. If you have been exposed to Covid, tested positive for Covid, or think you might have Covid, please self-report here: https://mclennan.co1.qualtrics.com/jfe/form/SV_9FiKfG5D85livQN . You will be contacted by an MCC health official who will determine whether you should or should not quarantine from campus. In the event that you must quarantine, I will work with you to determine how to best make up missed work. You must have completed the self-report in order for me to excuse absences due to quarantine.

Student Behavioral Expectations or Conduct Policy:

Students are expected to maintain classroom decorum that includes respect for other students and the instructor, prompt and regular attendance, and an attitude that seeks to take full advantage of this educational opportunity.

[Click Here for the MCC Attendance/Absences Policy](https://www.mclennan.edu/highlander-guide/policies.html)

(<https://www.mclennan.edu/highlander-guide/policies.html>)

Click on the link above for the college policies on attendance and absences. Your instructor may have additional guidelines specific to this course.

*****I reserve the right to change any term on this syllabus at any time*****



ACADEMIC RESOURCES/POLICIES

Accommodations/ADA Statement:

Any student who is a qualified individual with a disability may request reasonable accommodations to assist with providing equal access to educational opportunities. Students should contact the Accommodations Coordinator as soon as possible to provide documentation and make necessary arrangements. Once that process is completed, appropriate verification will be provided to the student and instructor. Please note that instructors are not required to provide classroom accommodations to students until appropriate verification has been provided by the Accommodations Coordinator. For additional information, please visit www.mclennan.edu/disability.

Students with questions or who require assistance with disabilities involving physical, classroom, or testing accommodations should contact:

disabilities@mclennan.edu

254-299-8122

Room 319, Student Services Center

Title IX:

We care about your safety, and value an environment where students and instructors can successfully teach and learn together. If you or someone you know experiences unwelcomed behavior, we are here to help. Individuals who would like to report an incident of sexual misconduct are encouraged to immediately contact the Title IX Coordinator at titleix@mclennan.edu or by calling Dr. Drew Canham (Chief of Staff for Diversity, Equity & Inclusion/Title IX) at (254) 299-8645. Individuals also may contact the MCC Police Department at 299-8911 or the MCC Student Counseling Center at MCC at (254) 299-8210. The MCC Student Counseling Center is a confidential resource for students. Any student or employee may report sexual harassment anonymously by visiting <http://www.lighthouse-services.com/mclennan/>.

Go to McLennan's Title IX webpage at www.mclennan.edu/titleix/. It contains more information about definitions, reporting, confidentiality, resources, and what to do if you or someone you know is a victim of sexual misconduct, gender-based violence or the crimes of rape, acquaintance rape, sexual assault, sexual harassment, stalking, dating violence, or domestic violence.

Student Support/Resources:

MCC provides a variety of services to support student success in the classroom and in your academic pursuits to include counseling, tutors, technology help desk, advising, financial aid, etc. A listing of these and the many other services available to our students is available at <http://www.mclennan.edu/campus-resource-guide/>

College personnel recognize that food, housing, and transportation are essential for student success. If you are having trouble securing these resources or want to explore strategies for balancing life and school, we encourage you to contact a Success Coach by calling (254) 299-8226 or emailing SuccessCoach@mclennan.edu. Students may visit the Completion Center Monday-Friday from 8 a.m.-5 p.m. to schedule a meeting with a Success Coach and receive additional resources and support to help reach academic and personal goals. Paulanne's Pantry (MCC's food pantry) provides free food by appointment to students, faculty and staff based on household size. Text (254) 870-7573 to schedule a pantry appointment. The Completion Center and pantry are located on the Second Floor of the Student Services Center (SSC).

MCC Foundation Emergency Grant Fund:

Unanticipated expenses, such as car repairs, medical bills, housing, or job loss can affect us all. Should an unexpected expense arise, the MCC Foundation has an emergency grant fund that may be able to assist you. Please go to <https://www.mclennan.edu/foundation/scholarships-and-resources/emergencygrant.html> to find out more about the emergency grant. The application can be found at https://www.mclennan.edu/foundation/docs/Emergency_Grant_Application.pdf.

MCC Academic Integrity Statement:

Go to www.mclennan.edu/academic-integrity for information about academic integrity, dishonesty, and cheating.

Minimum System Requirements to Utilize MCC's D2L|Brightspace:

Go to <https://www.mclennan.edu/center-for-teaching-and-learning/Faculty-and-Staff-Commons/requirements.html> for information on the minimum system requirements needed to reliably access your courses in MCC's D2L|Brightspace learning management system.

Minimum Technical Skills:

Students should have basic computer skills, knowledge of word processing software, and a basic understanding of how to use search engines and common web browsers.

Backup Plan for Technology:

In the event MCC's technology systems are down, you will be notified via your MCC student email address. Please note that all assignments and activities will be due on the date specified in the Instructor Plan, unless otherwise noted by the instructor.

Email Policy:

McLennan Community College would like to remind you of the policy (<http://www.mclennan.edu/employees/policy-manual/docs/E-XXXI-B.pdf>) regarding college email. All students, faculty, and staff are encouraged to use their McLennan email addresses when conducting college business.

A student's McLennan email address is the preferred email address that college employees should use for official college information or business. Students are expected to read and, if needed, respond in a timely manner to college emails. For more information about your student email account, go to www.mclennan.edu/student-email.

Instructional Uses of Email:

Faculty members can determine classroom use of email or electronic communications. Faculty should expect and encourage students to check the college email on a regular basis. Faculty should inform students in the course syllabus if another communication method is to be used and of any special or unusual expectations for electronic communications.

If a faculty member prefers not to communicate by email with their students, it should be reflected in the course syllabus and information should be provided for the preferred form of communication.

Email on Mobile Devices:

The College recommends that you set up your mobile device to receive McLennan emails. If you need assistance with set-up, you may email Helpdesk@mclennan.edu for help.

You can find help on the McLennan website about connecting your McLennan email account to your mobile device:

- [Email Setup for iPhones and iPads](https://support.microsoft.com/en-us/office/set-up-an-outlook-account-in-the-ios-mail-app-b2de2161-cc1d-49ef-9ef9-81acd1c8e234?ui=en-us&rs=en-us&ad=us) (<https://support.microsoft.com/en-us/office/set-up-an-outlook-account-in-the-ios-mail-app-b2de2161-cc1d-49ef-9ef9-81acd1c8e234?ui=en-us&rs=en-us&ad=us>)
- [Email Setup for Androids](https://support.microsoft.com/en-us/office/set-up-email-in-android-email-app-71147974-7aca-491b-978a-ab15e360434c?ui=en-us&rs=en-us&ad=us) (<https://support.microsoft.com/en-us/office/set-up-email-in-android-email-app-71147974-7aca-491b-978a-ab15e360434c?ui=en-us&rs=en-us&ad=us>)

Forwarding Emails:

You may forward emails that come to your McLennan address to alternate email addresses; however, the College will not be held responsible for emails forwarded to an alternate address that may be lost or placed in junk or spam filters.

For more helpful information about technology at MCC, go to [MCC's Tech Support Cheat Sheet](#) or email helpdesk@mclennan.edu.

Disclaimer:

The resources and policies listed above are merely for informational purposes and are subject to change without notice or obligation. The College reserves the right to change policies and other requirements in compliance with State and Federal laws. The provisions of this document do not constitute a contract.