



WACO, TEXAS

**COURSE SYLLABUS
AND
INSTRUCTOR PLAN**

College Physics

PHYS-1401-01

Dr. Meera D Gurung

NOTE: This is a Summer Course.

Course Description:

Algebra-level physics sequence, with laboratories, that includes study of classical mechanics, thermodynamics, wave mechanics, optics, electricity, magnetism, and radioactivity.

Prerequisites and/or Corequisites:

Prerequisite: Credit for MATH 1316 or equivalent.

Course Notes and Instructor Recommendations:

PHYS-1401 is an in person course. Class notes will be available on Brightspace to assist student success, all assignments will be posted on Mastering Physics.

Instructor Information:

Instructor Name: Dr. Meera Devi Gurung

MCC E-mail: mgurung@mclennan.edu

Office Phone Number: 254-299-8186

Office Location: S345

Office/Teacher Conference Hours: MW12:05 pm: 1:00 pm.

Other Instruction Information: **I usually reply to emails within 24 hrs, if you don't hear back from me in 24 hrs, email me again.**

Required Text & Materials:

- Title: Physics 5th Edition

Author: James S. Walker

Edition: 5th

Publisher: Pearson Addison-Wesley

ISBN: 9780134465784 (w/Modified Mastering Physics Access Code)

Access to PHYSICS (MODIFIED MASTERINGPHYSICS STANDALONE ACCESS CARD)

Publisher: Pearson Addison-Wesley

ISBN: 9780134019727

(License can be purchased online through www.masteringphysics.com)

- A Scientific Calculator: This means something that can handle exponential, trigonometric, hyperbolic trigonometric and logarithmic functions.
- Access to Brightspace: It is used for announcement, grades and other course related materials.
- **Additional requirements:** Students must have a reliable computer and internet connection. Students must be able to demonstrate basic computer literacy skills such as keyboarding, sending

and receiving email, and using a web browser.

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

Methods of Teaching and Learning:

This is a face to face class. All the Lectures material is available on Brightspace. Registered students gain access to a Brightspace that contains all course materials, instructions, assignments and Zoom meeting informations. Students will learn through slides , lectures, as well as through work on homework, labs, quizzes and, exams. **Additional methods may be used as opportunities to present themselves.**

Course Objectives and/or Competencies:

1. Perform operations and solve problems using dimensional analysis.
2. Identify the principles of kinematics, and solve problems using these principles.
3. Describe vectors, and solve problems using vectors in Physics.
4. Identify forces and Newton's Laws of motion, and solve problems utilizing Newton's Laws of motion.
5. Identify the different types of energy, and solve problems using principles of conservation of energy.
6. Define the principles of impulse, momentum, and collisions, and use those principles to solve problems.
7. Discuss rotational kinematics and dynamics and the relationship between linear and rotational motion.
8. Solve problems involving rotational and linear motion.
9. Define equilibrium, including different types of equilibrium.
10. Describe and apply the basic principles of fluid mechanics.
11. Discuss and apply the principles of temperature and heat in thermodynamics.
12. Watch and analyze video or simulations which clearly communicate experimental information in a logical and scientific manner.
13. Analyze principles involving classical mechanics.
14. Relate physical observations and measurements involving classical mechanics to theoretical principles.

15. Evaluate the accuracy of physical measurements and the potential sources of error in the measurements.
16. Identify appropriate sources of information for conducting laboratory experiments involving classical mechanics.

CORE OBJECTIVES – LIFE AND PHYSICAL SCIENCES: Courses in this category focus on describing, explaining, and predicting natural phenomena using the scientific method. Courses involve the understanding of interactions among natural phenomena and the implications of scientific principles on the physical world and on human experiences.

- A. Critical Thinking Skills - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information. These will be assessed through lecture exams, problems assigned for homework, and/or laboratory exercises.
- B. Communication Skills - to include effective development, interpretation and expression of ideas through oral and visual communication via Zoom meetings. These will be assessed by presentations and/or reports based on laboratories, problems, and/or research.
- C. Empirical and Quantitative Skills - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions. These will be assessed through lecture exams, problems assigned for homework, and/or laboratory exercises.

Teamwork - to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal. This will be evaluated through group discussions, group laboratory projects, and/or through group presentations

Course Outline or Schedule:

This course will encompass the following material to be divided into three sections. Objectives 12-16 are covered under labs which will be now assigned online. Core objectives are covered throughout the semester.

Chapter 1 – Introduction to Physics

Chapter 2 – One-Dimensional Kinematics

Chapter 3 – Vectors in Physics

Chapter 4 – Two-Dimensional Kinematics

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Chapter 5 – Newton’s Laws of Motion

Chapter 6 – Applications of Newton’s Laws

Chapter 7 – Work and Kinetic Energy

Chapter 8 – Potential Energy and Conservation of Energy

Chapter 9 – Linear Momentum and Collisions

Chapter 10 – Rotational Kinematics and Energy

Chapter 11 – Rotational Dynamics and Static Equilibrium

Chapter 12 – Gravity

Chapter 15 – Fluids

Chapter 16 – Temperature and Heat

Chapter 17 – Phases and Phase Changes

Chapter 18 – The Laws of Thermodynamics

Date	Chapter Coverage	Due dates	Objective	Date	Chapter Coverage	Due dates	Objective
5/30	1,2		1,2	6/15	10	HW8	7
5/31	2,3		2	6/16		HW9	
6/1	3,4	HW1	2,3	6/17		HW10	
6/2		HW2	3,4	6/18		Quiz2,	
6/3		HW3		6/19	Exam2	This chapter covers chapters 6-10	
6/4		HW4, QUIZ1		6/20	11		8
6/5	5		4	6/21	12		9
6/6	5,6		4	6/22	15	HW11	10
6/7	6	HW5	1-4	6/23		HW12	
6/8	Exam 1	This test		6/24		HW15	

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		covers chapters 1 – 5.					
6/9			5	6/25		Quiz3	
6/10		HW6	6	6/26	16		11
6/11				6/27	17		11
6/12	7			6/28	18	HW16,	10-11
6/13	8			6/29	Exam3	This test covers chapter 11, 12,15, 16	11
6/14	9	HW7		6/30		HW17	
				7/2		HW 18	
				7/3 7/4		Revision	
				7/5	Due date for final exam		1-11

Course Grading Information:

Homework: 35% Lab: 10%
Exams (3): 30% Final Exam: 15%
Quizzes(3): 10%

A: +90, B: 80-89, C: 70-79, D: 60-69, F: 59 or less

Homework: Homework assignments are involved numeric problems designed to challenge you to gain a deeper understanding of the course material. Homework will be turned in and graded utilizing Mastering Physics. Due dates for all the homeworks are given on the calender.

Lab: The lab grades will consist of problems completed in class and lab reports to be written outside of class.

Exams: There will be three major exams during the summer session to be completed in class.

Exam questions will be based on material covered in the lecture, the textbook and the laboratory exercises. Final Exam: The final exam will be comprehensive and has the same format as the other exams.

Quizzes: There will be three quizzes and you will be notified about the quiz when it is posted, due dates for the quizzes are already posted on calendar.

There will be no credit for any late submission.

Late Work, Attendance, and Make Up Work Policies:

Homework and Lab: Students lose 2% credit per hour for problems completed after the due date and time on Mastering Physics.

Exams and quizzes: Unless there is a college approved, documented, excused absence, no major exam may be made up. Any unexcused absence for an exam or quiz will result in a grade of zero for that exam or quiz.

Final Exams: The final exam is required for all students. Unless there is a college approved, documented, excused absence, the final exam may be made up. Any unexcused absence for final exam will result in a grade of zero for that exam.

Attendance is mandatory. **Per MCC policy, you will be automatically dropped after missing 25% of the class meetings.** If you are dropped before the official drop date, you will receive a grade of W. If you are dropped after the official drop date, you will receive a grade of F, unless there are highly unusual circumstances.

Tardiness and Leaving Class Early: Any student who is late for class or who leaves class early will accumulate half an absence, regardless for the reason for the tardiness or early departure. These half absences will count towards the 25% absence policy of MCC.

Student Behavioral Expectations or Conduct Policy:

Describe the behaviors students are expected to demonstrate in class, lab, clinical, including dress policy and reference to the General Conduct Policy in the Highlander Guide. For example, "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 the education 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 during the semester.

Updated 11/04/2022



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-
2998122
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 acting Title IX Coordinator at titleix@mclennan.edu or by calling, Dr. Claudette Jackson, (Diversity, Equity & Inclusion/Title IX) at (254) 299-8465. MCC employees are mandatory reporters and must report incidents immediately to the Title IX Coordinator. Individuals may also contact the MCC Police Department at (254) 299-8911 or the MCC Student Counseling Center 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/>

Academic Support and Tutoring is here to help students with all their course-related needs. Specializing in one-on-one tutoring, developing study skills, and effectively writing essays. Academic Support and Tutoring can be found in the Library and main floor of the Learning Commons. This service is available to students in person or through Zoom from 7:30 am - 6:00 pm Monday through Thursday and 7:30 am - 5:00 pm on Friday. You can contact the Academic Support and Tutoring team via Zoom (<https://mclennan.zoom.us/j/2542998500>) or email (ast@mclennan.edu) during the above mentioned times.

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 either MCC CREW – Campus Resources Education Web by calling (254) 299-8561 or by emailing crew@mclennan.edu or a Success Coach by calling (254) 299-8226 or emailing SuccessCoach@mclennan.edu. Both are located in the Completion Center located on the second floor of the Student Services Center (SSC) which is open Monday-Friday from 8 a.m.-5 p.m.

Paulanne's Pantry (MCC's food pantry) provides free food by appointment to students, faculty and staff. To schedule an appointment, go to https://mclennan.co1.qualtrics.com/jfe/form/SV_07byXd7eB8iTqJg. Both the Completion Center and Paulanne's 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/FacultyandStaffCommons/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/studentemail.

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](#)
- [Email Setup for Androids](#)

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.