

Mayville State University

PHYS 211: College Physics I – On-campus

Fall 2025

3 Credit Hours

Course and Instructor Information

Instructor: Dr. Thomas Gonnella - please address me as “Dr. Gonnella”

Contact Information: Office Phone and Location: (701) 788-4807 – Science Building 124

Email: tom.gonnella@mayvillestate.edu

Hours of Availability: Anytime outside of my posted class times.

Instruction Mode: Face-to-face

Course Dates: 8/27/25 (first day of lecture) to 12/18/25 (final exam)

Time Zone: All times indicated throughout this syllabus reflect Central Time (CT).

Meeting Times and Location: MWF 2:00-3:15 PM, Science Building 130

Final Exam Time and Location: Wed. 12/18/25 from 2:00-3:50 PM, Science Building 130

Zoom Link: To be established if it becomes necessary.

Required Course Materials and Technologies

Required Materials

Hardware: This online lab course requires a computer that meets the [MSU technology requirements](#), including a webcam, microphone, and a reliable internet connection, for two-way video and audio communication. This is necessary for the student to be monitored by YuJa Varsity while taking exams.

Achieve Access: Graded homework assignments and exams are only available through a separate course shell contained within the Achieve website. Course access codes are available through the MSU bookstore or directly from [Macmillan Learning](#). The course ID this semester is “omhyc3”.

Recommended Textbook: Physics, Walker, Prentice-Hall, 5th Ed. (2017) or 4th Ed. (2009). Also, the open educational textbook College Physics by [OpenStax](#) can be utilized.

Course Description

An algebra-based physics course designed to provide a general, conceptual understanding of the principles of physics related to motion, energy, properties of matter, and thermodynamics.

Co-requisites: Students should be co-enrolled in PHYS 211L.

Course Objectives

To successfully complete this course, the learner will be expected to meet the following objectives, as aligned to Composite Science Education Program Approval Standards through North Dakota’s Education Standards and Practices Board (ND ESPB):

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Students will analyze word problems to accurately determine solutions to the physics problems posed. The topics covered are provided in the course schedule.

Standards Alignment (Composite Science Education Program Approval Standards-ND ESPB):

- 13047.1 Composite Science Major/General Science The composite/general science program requires that environmental science be incorporated within other courses or as a separate course. The composite/general science program requires: 1. Coursework in biology, chemistry, physics, and earth science, including: a. Minimum of twenty-four semester hours in one area, b. Minimum of twelve semester hours in two other areas, c. Minimum of four semester hours in the fourth area, d. Courses must be from those that the institution allows toward graduation in the science major. 2. Study of mathematics through the pre-calculus level (college algebra and above) and statistics

Course Expectations

Assignments and Assessments

Homework: Timely completion of the graded homework assignments in the Achieve course shell is strongly encouraged but not required. The course schedule (at the end of this document) indicates the dates that all homework assignments will be posted and when the assignments are due. Students are encouraged to work ahead of pending deadlines because no graded homework extensions will be granted. The percentage from the homework assignment leading up to an exam can be averaged with the resulting percentage on the corresponding exam. If the percentage from the combined homework is less than the percentage on the exam, then the homework percentage is dropped, and the percentage on the corresponding exam becomes the score used for grade determination. Practice homework with lectured answers provided in Blackboard and warm-up questions in Achieve are intended to give students the opportunity to practice more problems and are not graded or evaluated in any way.

Throughout the recorded lectures and practice homework, the importance of significant figures is consistently emphasized in this course. Most of the questions in Achieve are more concerned about accuracy than proper precision. If you are doing a problem in Achieve where the software is looking for a value to be entered and you do the problem and get an answer like 1.36478 meters, enter this 1.36478 m not the answer to the correct number of significant figures (1.3 m) because this properly rounded off value may fall outside the 2% tolerance cut off imposed by the software.

Exams: The timeline for the four on-campus section exams and the on-campus final exam is clearly indicated on the schedule at the end of this document. The exams are in the Achieve course shell and follow a similar format to the homework assignments in that feedback on incorrect responses will be provided, but guidance towards the correct solution will not be provided. If it is necessary to miss a scheduled exam due to an instructor-approved excused absence, arrangements for a makeup session must be made with the instructor prior to the scheduled exam.

All exams will be taken using an instructor-approved non-programmable calculator. You will need to record yourself taking the exams using YuJa Varsity. Using a webcam and microphone, this software will record you taking the exam while capturing all on-screen computer activity. If the exam is completed without the

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corresponding YuJa Varsity recording, a score of zero will be given, regardless of the score posted in Achieve. The use of an equation sheet will be explained before each exam. It is your responsibility to check and maintain the ability to capture YuJa Varsity recordings through performing practice recordings.

Instructor/Student Communication

My preferred method of contact is e-mail, and although it is typically sooner, you should expect a response to your e-mails within 48 hours. Although my e-mail responses will typically go to whichever account you initially sent the e-mail from, you are still accountable for all academic communications sent to your Mayville State University e-mail address.

Blackboard Announcements: Course updates and reminders are typically posted as announcements in Blackboard. You are expected to have the notification of announcements turned on in your Blackboard account. If you are not receiving announcements in a timely manner, please contact Robert Davis, the MSU Blackboard Administrator, at robert.davis.4@mayvillestate.edu to get this issue resolved.

Study Groups: Students are encouraged to discuss difficult concepts, warm-up problems, and homework problems in the Blackboard Student Learning forum. When responding to others, try to help steer fellow students in the correct direction without providing a direct solution to the problem.

Evaluation and Grading

Grading Policy

It is my responsibility to provide a grading spreadsheet in the Blackboard course shell and ensure that exam and homework scores are posted in a timely manner within the Achieve course shell. It is your responsibility to take their scores from the Achieve course shell and enter them into the grading spreadsheet provided to determine your level of performance in this course.

Grading Scale: A > 90% B > 80% C > 70% D > 60%

Breakdown of Grades

Grades in this course are determined by the performance on four optional graded homework assignments, four required section exams, and one final exam. The dates below are tentative

1st Hour Exam + 1st Graded Homework Set	30%
2nd Hour Exam + 2nd Graded Homework Set	30%
3rd Hour Exam + 3rd Graded Homework Set	30%
4th Hour Exam + 4th Graded Homework Set	30%
Best 3 scores	90%
Final Exam	10%

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Academic Accommodation

As shown in the grade breakdown provided above, you will only be graded on three out of four of the exam-homework sets. If life gets in the way of this course and a low score results, this will be the score that is dropped. If life doesn't get in the way, your lowest score will still be dropped.

Academic Dishonesty

Academic dishonesty on any graded material will be dealt with severely.

Enrollment Verification

The U.S. Department of Education requires instructors of online courses to provide an activity that will validate student enrollment in this course. The only way to verify that a student has been in this course is if he, she, or they perform an action in the LMS, such as completing an assignment or taking a quiz. Logging into the LMS is NOT considered active course participation. For this course, students need to simply show up to class the first week. If you do not show up for class, your enrollment in this course will be at risk.

Late Arrivals

If you are adding this course late, make sure to check the Announcements section in the Blackboard course shell for all the announcements that you may have missed prior to your admission into the Blackboard course shell. Your deadlines in this course will remain the same as the deadlines for students who were enrolled on or before the first day of class.

Proctor Notification

Only YuJa Proctoring is needed for this class.

Important Student Information

In the Help & Resources for Students section of the Blackboard Institution Page, you can view and download the Important Student Information document for the current academic year. It includes information about:

- ✓ Land Acknowledgement Statement
- ✓ Academic Grievance Concerns and Instructor English Proficiency
- ✓ NetTutor - Online Tutoring Program
- ✓ Starfish - Student Success System
- ✓ Students with Documented Disabilities
- ✓ Student Learning Outcomes / Essential Learning Outcomes
- ✓ Academic Honesty
- ✓ Emergency Notification
- ✓ Continuity of Academic Instruction for a Pandemic or Emergency
- ✓ Family Educational Rights and Privacy Act of 1974 (FERPA)
- ✓ Diversity Statement (Title IX)

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Course Schedule - Tentative

08/25 - The following lectures, notes, and practice homework will become available

- Physics, units, dimensional analysis
- Significant figures, order of magnitude calculations
- 1-D kinematics, vertical motion, motion graphs
- Review for Exam 1

09/10 - Graded Homework 1 is due before 11 PM

09/15 – Exam 1 will be taken in class with a YuJa Verity recording

09/15 - The following lectures, notes, and practice homework will become available

- Vector conversion, vector addition
- 2-D kinematics
- Introduction to forces
- Resolving forces, static equilibrium
- Combined motion problems
- Friction
- Review for Exam 2

10/08 - Homework 2 is due before 11 PM

10/13 - Exam 2 will be taken in class with a YuJa Verity recording

10/13 - The following lectures, notes, and practice homework will become available

- Relative motion, centripetal force
- Universal gravitation, superposition principle, orbits
- Work, energy, springs, energy conservation, power
- Momentum, impulse
- Collisions, center of mass/gravity
- Torque, conditions of equilibrium
- Review for Exam 3

11/05 - Graded Homework 3 is due before 11 PM

11/10 - Exam 3 will be taken in class with a YuJa Verity recording

11/10 - The following lectures, notes, and practice homework will become available

- More torque
- Linear/angular motion and other quantities
- Fluids
- Material deformation

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- Stress-strain relationships
- Introduction to thermodynamics
- Review for Exam 4
- Review for Final Exam

12/03 - Graded Homework 4 is due before 11 PM

12/08 - Exam 4 will be taken in class with a YuJa Verity recording

12/18 - Final Exam will be taken in class with a YuJa Verity recording

Important Dates

- Monday, August 25th – the first day of class, the course shell opens in Blackboard
- Thursday, November 14th – last day to withdraw from term or drop with record