Mayville State University - PHYS 211: College Physics I (Online) - Fall 2020 - 3 credits

Instructor:	Dr. Thomas Gonnella ← please address me as "Dr. Gonnella"
Office:	Science Building 124B
Office Phone:	(701) 788-4807
Cell Phone:	(701) 371-1874 (for exam emergencies only)
Email:	tom.gonnella@mayvillestate.edu ← preferred method of contact
Hours of Availability:	As needed, e-mail account is checked quite frequently.
LMS for this Course:	Blackboard
Instruction Mode:	Online – asynchronous
Time Zone:	All times indicated throughout this syllabus reflect Central Time (CT).

Class Meeting Time: The content lectures will be posted in Blackboard as outlined in course schedule (at the end of this document). These lectures will cover the course content, practice homework sets, and the reviews for the exams.

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. This course only contains only the lecture material; the lab component is a separate course.

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

Recommended Text: Physics, Walker, Prentice-Hall, 5th E. (2017) or 4th Ed. (2009) Also the open educational textbook by OpenStax (https://openstax.org/subjects/science) can be utilized.

Required Materials for this Course

Hardware: A computer with a webcam, a microphone, and a reliable internet connection for two-way video and audio communication is needed for the student to be monitored while taking exams.

Sapling Learning Access: Homework assignments and exams are only available through the course shell contained within the Sapling Learning website. Single course access codes are available through the MSU bookstore or directly from Sapling Learning - the cost is about $45.00 per student per term. To purchase access, complete the following steps

1. Go to www.saplinglearning.com/login to create an account. If you already have a Macmillan Learning account, you can log in with your existing credentials and skip to step 3.
   a. Create your password and set all three security questions.
   b. Start typing in your institution to select from the options that appears in the Primary Institution or School name field. If your institution does not appear you can add it by typing in the full name.
   c. Accept the terms of use and click "Sign Up".
   d. Check your email for the confirmation link to complete your registration and return to the login page.
2. Set your institution by searching using your institution's full name and selecting the appropriate option from the menu that appears.
3. Under Enroll in a new course, you should see Courses at [Your College]. Click to expand this list and see courses arranged by subject. Click on a subject to see the terms that courses are available.
4. Click on the term to expand the menu further (note that Semester 1 refers to the first course in a sequence and not necessarily the first term of the school year).

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5. Once the menus are fully expanded, you'll see a link to a specific course. If this is indeed the course you'd like to register for, click the link.

Need Help? Our technical support team can be reached by phone, chat, or by email via the Student Support Community. To contact support please open a service request by filling out the web form: https://macmillan.force.com/macmillanlearning/s/

ProctorU Access: Exams will be proctored through ProctorU, an online exam proctoring service. Access codes for the four one-hour exams (about $15.00/ea) and the two-hour final exam (about $20.00) can be purchased through the MSU bookstore and will cover the expense of taking the exams if the exam times are reserved at least 72 hours in advance. If exam times are not reserved with ProctorU at least 72 hours in advance, then students will be charged additional fees. Students may choose to use a credit card with ProctorU directly instead of purchasing access codes through the MSU bookstore.

Course Expectations

Pre-requisites: Students are expected to have successfully completed College Algebra (Math 103) and Trigonometry (MATH 105) prior to enrolling in this course. If these topics are/were challenging to the student then they should utilize a tutor outside of this class as needed – Smarthinking, an online tutoring service is also available to enrolled students.

Enrollment Verification: The U.S. Department of Education requires instructors of online courses to provide an activity which will validate student enrollment in this course. The only way to verify that a student has been in this course is if he or she takes an *action* in Blackboard, such as completing an assignment or a taking a quiz. Logging into Blackboard is **NOT** considered attendance. For this course students need to complete the enrollment verification quiz located in the Blackboard course shell. Please complete these activities within the first week of the course. If this activity is not complete your enrollment in this course will be at risk. Students may be asked to complete this quiz again later in the course.

Communication: The instructor's preferred method of contact is e-mail and, although it is typically much sooner, students should expect a response to their e-mails at least within 48 hours. Despite e-mail responses are usually sent to whichever account the student initially e-mails the instructor from, students are still accountable for all academic communications sent to their Mayville State University e-mail address.

Homework: Timely completion of the homework assignments in the Sapling Learning course shell is strongly encourage but still completely optional. The course schedule (at the end of this document) indicates the dates that all homework assignments will be posted by 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 Sapling are intended for students to have the opportunity to have more problems to practice and is not graded or evaluated in any way.

In the recorded lectures and practice homework the importance of significant figures is emphasized all the way through this course. Most of the questions in Sapling are more concerned about accuracy than proper precision. If you are doing a problem in Sapling 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

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may fall outside the 2% tolerance cut off imposed by the software. This warning is given in the Sapling course shell at https://macmillan.force.com/macmillanlearning/s/article/Sapling-Learning-Significant-figures

Proctor Notification: As explained earlier in this document, ProctorU services will be used to provide proper proctoring for each exam. ProctorU exam appointments are on a first-come-first-serve basis so do not delay too long before making upcoming appointment or the options may be very limited. Although only 60 minutes is allotted for each section exam, students should set aside an additional 60 minutes for the authentication and securing the area processes conducted with ProctorU. All exam times need to be scheduled with ProctorU ahead of time. Exams are only to be opened when the ProctorU proctor instructs the student to do so – if an exam has been accessed by a student prior to this point, a score zero will be assigned for that exam regardless of the student's performance on the exam. Make sure to check out with the ProctorU proctor before ending each exam session instead of simply dropping the connection. An equation sheet is allowed for each exam - the guidelines for each equation sheet are outlined in the corresponding exam review lecture. Students should read through the ProctorU materials provided in the Blackboard course shell and perform a "test their equipment" check with ProctorU before beginning the first exam appointment. Also powering down and restarting your computer before a scheduled appointment is encouraged to prevent forced updates during the exam time.

Exams: The timeline for the four section exams and the final exam are clearly indicated on the schedule at the end of this document. Students have long exam windows to schedule their exams over so there is no need for any exam extensions. Students should not schedule their exams towards the end of the exam window because if any technical, pandemic, or personal issues arise the exam may not be able to be re-scheduled before the end of the exam window. If it is necessary to re-schedule an exam to a different time period, do not forget to inform the instructor so that the exam time can be also changed within Sapling Learned by the instructor. If this is not done the student may go through the authentication process with ProctorU at the new time period and then not be able to start their exam because the instructor cannot be reached to change the exam time – the ProctorU staff does not have access to the Sapling Learning exam times. Exams that have not been completed before the deadlines will be given a score of zero. All exams need to be taken using an instructor-approved calculator. The format of the exams will be similar to the graded homework assignments but due to the time constraints the problem/questions will be less involved.

Late Arrivals: The deadlines for students adding this course after the first day of instruction will remain the same as students that were enrolled before or on the first day of class. Make sure to check the Announcements section in the Blackboard course shell for all of the announcements that you may have missed prior to your admission into the Blackboard course shell.

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

Method of Evaluation -> Course Breakdown - as outlined below, grades in this course are determine by the performance on four optional graded homework assignment, four required section exams, and one final exam.

1st Hour Exam (09/09-09/15) + 1st Graded Homework Set	30%
2nd Hour Exam (10/07-10/13) + 2nd Graded Homework Set	30%
3rd Hour Exam (11/04-11/10) + 3rd Graded Homework Set	30%
4th Hour Exam (12/02-12/08) + 4th Graded Homework Set	30%

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Best 3 Scores	90%
Final Exam (12/09 - 12/18)	10%

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

It is the responsibility of the instructor 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 Sapling Learning course shell. It is the responsibility of the students to take their scores from the Sapling Learning course shell and enter them into grading spreadsheet provided in order to determine their level of performance in this course.

Students with Documented Disabilities: As required by Section 504 of the Rehabilitation Act and the ADA, appropriate and reasonable accommodations will be made for all students with documented disabilities (LD, Orthopedic, Hearing, Visual, Speech, Psychological, ADD/ADHD, Health-Related, & Other) who request those accommodations to ensure full access to the academic opportunities of Mayville State University. In order to receive services, students must disclose their disabilities, request accommodations and provide documentation showing necessary accommodations to the Director of Student Success and Disability Support Services, Katie Richards (katie.richards.2@mayvillestate.edu). Any information shared will remain confidential.

Academic Dishonesty: Academic dishonesty on any graded material will be dealt with severely. Students are expected to comply with the instructions provided in this course and ProctorU proctor's requests involved in securing and ensuring the academic integrity of the testing environment. If ProctorU reports that it is likely that the academic integrity of an exam session has been compromised, a score of zero will be assigned for that exam regardless of the student's performance on the exam.

English Proficiency and other Academic Concerns: The North Dakota State Board of Higher Education in North Dakota requires that all faculty members and teaching assistants in the NDUS have appropriate communications skills, including the ability to speak English clearly and with good pronunciation. Students who experience problems have the following obligation:

1. Discuss the situation with the instructor first to see if a resolution can be reached.
2. If the problem is still not resolved with the instructor, contact the instructor's Division Chair for assistance.
3. If the situation is still not resolved, the matter should be brought to the attention of the Vice President for Academic Affairs.
4. In the unlikely event that the situation has not been resolved through this procedure, students may contact the President of the University for final resolution.

Emergency Notification: The State Board of Higher Education requires that all faculty in the NDUS adhere to SBHE Policy 1902 regarding the emergency notification system. Given the distance involved, it is not necessary for online students to register their cell phones with "NotiFind" to receive emergency notifications.

Continuity of Academic Instruction for a Pandemic or Emergency: In the event of a major campus emergency resulting in temporary suspension of classes or early ending to the semester, the course requirements, deadlines, and grading percentages on the official syllabus are subject to change. The instructor will notify the students of such changes by email or Blackboard.

Family Educational Rights and Privacy Act of 1974 (FERPA): In compliance with the Family Educational Rights and Privacy Act of 1974, Mayville State University has information available regarding student and graduation records it maintains, see

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http://mayvillestate.smartcatalogiq.com/2020-2022/2020-2022-Academic-Catalog/Student-Services/Family-Education-Rights-and-Privacy-Act-of-1974

Starfish: Starfish is Mayville State's Early Warning System that the faculty and staff use to report feedback on your academic performance or lack of action on required course activities. If you receive a Starfish notification (which will be sent to your @mayvillestate.edu), please read and respond to it immediately because it will contain important information for you.

A more generic version of these last seven policies is available in the Important Student Information document under the Student Resources tab under the MyMSU tab or by clicking here.

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Course Schedule for PHYS 211 - College Physics I Fall Semester 2020

08/24 - The follow lectures, notes, and practice homework become available

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

09/09 - **Graded Homework 1** is due before 11 PM
09/09 - **Exam 1** test window opens at 6 AM
09/15 - **Exam 1** test window closes at 9 PM

09/14 - The follow lectures, notes, and practice homework become available

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

10/07 - **Graded Homework 2** is due before 11 PM
10/07 - **Exam 2** test window opens at 6 AM
10/13 - **Exam 2** test window closes at 9 PM

10/12 - The follow lectures, notes, and practice homework 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

11/04 - **Graded Homework 3** is due before 11 PM
11/04 - **Exam 3** test window opens at 6 AM
11/10 - **Exam 3** test window closes at 9 PM

11/09 - The follow lectures, notes, and practice homework become available

- More torque
- Linear/angular motion and other quantities
- Fluids
- Material deformation
- Stress-strain relationships
- Introduction to thermodynamics
- Review for Exam 4
- Review for Final Exam

12/02 - **Graded Homework 4** is due before 11 PM
12/02 - **Exam 4** test window opens at 6 AM
12/08 - **Exam 4** test window closes at 9 PM

12/09 - **Final Exam** test window opens at 6 AM
12/18 - **Final Exam** test window closes at 8 PM

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Syllabus Appendix: Other Required Syllabus Items

INTASC Standards: In the section below the term "teacher" pertains to the student taking this course that is on-course to become a student teacher.

#	**INTASC Standards**
1	The teacher understands the central concepts, tools of inquiry, and structures of the discipline(s) he/she teaches.
6	The teacher uses knowledge of effective verbal and nonverbal communication techniques to foster active inquiry, collaboration, and supportive interaction in the classroom.

Program Student Learning Outcomes: The Academic Program Student Learning Outcomes document is available under the Student Resources tab under the MyMSU tab or by clicking here. It contains all learning outcomes pertaining to Essential Studies courses and all majors and minors. The document has an index so you can quickly find the degree you are pursuing.

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