



PHYS 2211 - Principles of Physics I

Course Syllabus – Fall 2021

The instructor reserves the right to make minor changes to the syllabus during the term. The instructor will notify students, via email or course announcement, when changes are made in the requirements and/or grading of the course.

Individuals with disabilities who need to request accommodations should contact the Disability Services Coordinator, Student Center 255, 678-466-5445, disabilityservices@mail.clayton.edu.

Course Description:

Number and Title: PHYS 2211 (CRN 83836) Principles of Physics I

Credit Hours: 3.0 semester credit hours

Catalog Description: An introductory course which will include material from mechanics and waves. Elementary differential calculus will be used.

Course Prerequisites and Co-requisites:

Prerequisites or co-requisite: MATH 2502, Calculus II

Co-requisite: PHYS 2211L, Principles of Physics Laboratory I

Note: Due to the co-requisite nature of PHYS 2211 and PHYS 2211L, if PHYS 2211 is dropped, then PHYS 2211L must also be dropped.

Notebook Computer Requirement:

Each CSU student is required to have ready access throughout the semester to a notebook computer that meets faculty-approved hardware and software requirements for the student's academic program. Students will sign a statement attesting to such access. For further information on CSU's Official Notebook Computer Policy, please go <https://www.clayton.edu/hub/services/student-services/itp-choice/notebook-computer-policy>

Computer Skill Prerequisites:

Able to use the Windows™ operating system.

Able to use a the Microsoft Word™ word processing program.

Able to send and receive e-mail using the Outlook™ or Outlook Express™ program

Able to attach and retrieve attached files via email.

Able to use a Web browser.

Able to access the learning management system (D2L) and post assignments.

Able to access and complete assignments in Pearson's Mastering Physics on-line homework system: <https://www.pearsonmylabandmastering.com/northamerica/masteringphysics/>

In-class Use of Student Notebook Computers:

Student notebook computers will be used in the classroom in this course. Computers will be required to access course materials and to communicate with your instructor.

Brightspace Desire2Learn (Online Classroom):

On-line activity will take place in Brightspace Desire2Learn (**D2L**), the virtual classroom for the course, and in Microsoft Teams. Posting of your work in D2L is a course requirement.

You can gain access to D2L, by signing on to the SWAN portal. New students, or those who would like a refresh on Brightspace (D2L) features, can review the [D2L Video Tutorials - For Students](#)

For instructions on joining a Microsoft Teams meeting, see [this brief introduction](#).

If you experience any difficulties in Desire2Learn or Microsoft Teams, please email or call The HUB at TheHub@clayton.edu or (678) 466-HELP. You will need to provide the date and time of the problem, your SWAN username, the name of the course that you are attempting to access or Teams meeting, and your instructor's name.

Major Student Activities:

- Reading and studying from the course textbook.
- Working assigned homework problems.
- Taking notes.
- Answering and asking questions during class in Teams.
- Taking quizzes and examinations.
- Watching and participating in demonstrations of physical principles.

Program Learning Outcomes:

General education outcomes:

The Clayton State University Core Curriculum outcomes (see Area D) are located in the Graduation Requirements section of the [Academic Catalog and Student Handbook](#).

Chemistry outcomes:

PHYS 2211 is a required course in the B.S. degree program in Chemistry. PHYS 2211 supports outcomes 4, 5, 6, and 7 of the Chemistry major:

4. apply knowledge of physics and mathematics to solve chemical problems.
5. communicate scientific information in a clear and concise manner both orally and in writing.
6. collect, evaluate and interpret scientific data, and employ critical thinking to solve problems in chemistry and supporting fields.
7. collaborate effectively on team-oriented projects.

Course Learning Outcomes:

Course Outcome 1: Be able to identify and describe the basic laws of classical mechanics and wave motion.

Course Outcome 2: Be able to apply the basic laws of physics to the solution of conceptual and quantitative problems.

Term:

Fall Semester 2021

Instructor Information:

Instructor:

Class Meetings:

Classroom: Lecture Hall, Room B13

Class Times: 12:00 noon - 1:10 p.m., Monday and Wednesday

This class will be taught using materials and activities in D2L along with in-person sessions and office hours using Microsoft Teams. There is an expectation that you will attend sessions in person on the designated day and time found in your class schedule.

Directions for Installing Teams:

1. Go to swan.clayton.edu and click on the Microsoft Teams link.
2. Download the Microsoft Teams application to your computer by click on the small computer icon on the bottom left side of the screen. If you don't see the icon, you already have the program installed on your computer.
3. You will need to log in using your CSU username and password along with Multifactor Authentication.

Textbook Information:

Text: OpenStax University Physics, Volume 1: Chapters 1-13, 15

<https://openstax.org/details/books/university-physics-volume-1>

Evaluation:

In-class examinations: 2 exams @ 150 points 300

Quizzes*: 10 bi-weekly quizzes @ 15 points 150

Critical thinking exercises: 4 @ 25 points 100

Homework: 100 points** 100

Final examination***: 200

TOTAL 850

*Quizzes covering fundamentals of study assignments will be administered through D2L on Mondays and Fridays. Quizzes will be announced in advance. More than ten quizzes will be given; the highest ten quiz scores will count towards the course grade.

****Homework** will be administered through the Pearson's Mastering Physics on-line homework system: <https://www.pearsonmylabandmastering.com/northamerica/masteringphysics/>

*****The final examination** will be comprehensive.

Grading:

A	90 - 100%
B	80 - 89%
C	70 - 79%
D	60 - 69%
F	below 60%

Mid-term Progress Report

The midpoint grade in this course which will be issued by September 27, reflects approximately 30% of the entire course grade. Based on this grade, students may choose to withdraw from the course and receive a grade of "W." Students pursuing this option must fill out an official withdrawal form, available in the Office of the Registrar, by midpoint, which occurs on October 1, 2021. [Instructions for withdrawing are provided at this link.](#)

The last day to withdraw without academic accountability is Friday, October 1, 2021.

Course Schedule:

MODULE	DATE	LESSON TOPIC	TEXT CHAPTER, OPENSTAX	TEXT CHAPTER, KNIGHT
1	Aug 9 – Aug 11	Units and Physical Quantities	1	1
2	Aug 16 - Aug 18	Motion Along a Straight Line	3	2
3	Aug 23 - Aug 25	Motion in Two or Three Dimensions, Vectors	2, 4	3

3,4	Aug 30 – Sep 1	Projectile Motion, Forces	4	3
	Sep 6	Labor Day Holiday		
4	Sep 8	Newton's Laws	5	4
	Sep 13- Sep 15	Examination I Review and Exam	1-5	1-4
5	Sep 20 – Sep 22	Applying Newton's Laws	6	5
6	Sep 27 – Sep 29	Work and Kinetic Energy	7	10
	Oct 1	MIDPOINT: Last day to withdraw without academic accountability		
7	Oct 4 – Oct 6	Potential Energy and Energy Conservation	8	10
8	Oct 11 – Oct 13	Momentum and Impulse	9	9
9	Oct 18 – Oct 20	Rotation of Rigid Bodies	10	6
10	Oct 25 – Oct 27	Dynamics of Rotating Bodies	10, 11	6,7
	Nov 1 – Nov 3	Examination II Review and Exam	6 – 11	5-7, 9, 10
11	Nov 8 – Nov 10	Static Equilibrium	12	8
12	Nov 15 – Nov 17	Gravitation	13	
13	Nov 22	Periodic Motion	15	14
		Final Examination	1-10, 12, 13, 15	1-10, 14
	TBD			

Course Policies:

General Policy

Students must abide by policies in the Clayton State University Student Handbook, and the Basic Undergraduate Student Responsibilities. The Student Handbook is part of the [Academic Catalog and Student Handbook](#).

University Attendance Policy

Students are expected to attend and participate in every class meeting. Instructors establish specific policies relating to absences in their courses and communicate these policies to the students through the course syllabi. Individual instructors, based upon the nature of the course, determine what effect excused and unexcused absences have in determining grades and upon students' ability to remain enrolled in their courses. The university reserves the right to determine that excessive absences, whether justified or not, are sufficient cause for institutional withdrawals or failing grades.

Course Attendance Policy

Attendance is expected for all class periods. Attendance is required for quiz and examination periods. Any absence must be accompanied by a written excuse from a doctor or other competent authority.

Seating Chart

Attendance will be taken every day using a seating chart. Students will be expected to sit in the same seat as assigned throughout the semester.

No Show Policy

It is imperative that students have a successful start of each semester by attending class during the first week and no later than the second week of the semester. A registered student who does not attend at least one (1) class session by **5 pm August 19** will be reported a "no show." The consequences of being reported as a no show are significant: the student will be dropped from the class and may suffer significant financial hardship.

Missed Work

Without excuse, a grade of zero points will be assigned for the missed work. If a valid excuse is provided:

Make-up quizzes will be given only if they are taken before quiz solutions are posted. If the make-up quiz cannot be taken before the solutions are posted, the missed quiz will be counted as one of approximately two quizzes which can be dropped (approximately twelve quizzes will be given in the course. The highest ten quiz scores will be used to calculate the course grade).

Make-up examinations will be given only if they are taken before graded examinations are returned to students (next class period). In the event that a make-up examination cannot be taken

before exams are returned to students, the missed examination will not count in calculating the course grade. This means that other graded work will be responsible for a greater weight in determining the course final grade.

The final examination must be taken. Students missing the final examination should contact their instructor concerning the applicability of an [Incomplete grade](#).

Academic Dishonesty

Any type of activity that is considered dishonest by reasonable standards may constitute academic misconduct. The most common forms of academic misconduct are cheating and plagiarism. All instances of academic dishonesty will result in a grade of zero for the work involved. All instances of academic dishonesty will be reported to the [Office of Community Standards](#). Judicial procedures are described in the section of the [Academic Catalog and Student Handbook](#) titled, Procedures for Adjudicating Alleged Academic Conduct Infractions.

Disruption of the Learning Environment

Behavior which disrupts the teaching–learning process during class activities will not be tolerated. While a variety of behaviors can be disruptive in a classroom setting, more serious examples include belligerent, abusive, profane, and/or threatening behavior. A student who fails to respond to reasonable faculty direction regarding classroom behavior and/or behavior while participating in classroom activities may be dismissed from class. A student who is dismissed is entitled to due process and will be afforded such rights as soon as possible following dismissal. If found in violation, a student may be administratively withdrawn and may receive a grade of WF. More detailed descriptions of examples of disruptive behavior are provided in the Code of Conduct and Disciplinary Procedures sections of the Clayton State University [Academic Catalog and Student Handbook](#).

Weapons on Campus

Clayton State University is committed to providing a safe environment for our students, faculty, staff, and visitors. Information on laws and policies regulating weapons on campus are available at <http://www.clayton.edu/public-safety/Safety-Security/Weapons>

Other Policies

Late materials will not be accepted after the final course meeting (November 16, 2020). The use of simple calculators is allowed for all quizzes and examinations. All examinations are closed book. No student-produced "memory sheets" or note cards are allowed. An instructor-produced reference data pamphlet will be provided for all quizzes and examinations. Use of cell phones during quizzes and examinations is strictly prohibited.

All assignments shall be turned in through D2L. No e-mail assignments will be considered unless specifically discussed.

No smoking, eating or drinking is permitted at any time in the classroom.

Important dates:

Last day to drop without academic accountability: Friday, October 1, 2021.
