



Chandler Unified School District

SCI435A AP Physics C: Mechanics and Electricity/Magnetism
SY 2023-24



Course Overview

Course Description

AP Physics C: Electricity and Magnetism is a calculus-based, college-level physics course, especially appropriate for students planning to specialize or major in physical science or engineering. The course explores topics such as electrostatics; conductors, capacitors, and dielectrics; electric circuits; magnetic fields; and electromagnetism. Introductory differential and integral calculus is used throughout the course.

AP/IB/Dual Enrollment

This is an AP course that may be offered for Dual Credit.

Prerequisite/Fee(s)

Physics and concurrent enrollment in Calculus AB or higher

Course Materials

Folder specific for class

Graphing Calculator

Notebook for labs, notes, and classwork (you will want to glue or tape pages from class into this... it will help you study and keep track of the concepts)

Pencils

Colored pens or pencils (keeping track of the multiple forces happening in a problem can stand out better with different colors)

Adopted Resource(s)

University Physics, Young and Freedman (Savvas).

**An asterisk will indicate a resource containing sexually explicit materials per legislative definitions. CUSD has determined that all resources listed above are of exceptional educational value.*

Site and Faculty Information

School name and address:

Camille Casteel High School, 24901 S Power Rd, Queen Creek, AZ 85142

Building principal:

Jayson Phillips

phillips.jayson@cusd80.com

Teacher:

Benjamin Wilson BS Science

wilson.benjamin@cusd80.com

Office hours: Tutoring available before and after school on Monday, Wednesday and Thursday

Course Access

This course is taught in-person at Camille Casteel High School. Students will have access to the curriculum and instruction in the classroom. Google Classroom is the primary location for students to access material when absent from classes taught in person.

Help

Academic Support

- Contact the teacher to schedule an appointment during office hours
- [Ed Tech](#) support for students, parents/guardians, and community link (cusd80.com/Page/45109)

Mental Health Support

- CUSD mental health support cusd80.com/Domain/10528 or 480-573-8808 (talk or text)
- Suicide & Crisis Lifeline: 9-8-8 hotline
- 24-hour Crisis Line Talk: 602-222-9444, Text: 741-741

Student Conduct, Success, and Responsibilities

Student Handbook

Students must follow the policies and procedures established in the Student Handbook. Copies of the handbook can be found at cusd80.com/handbooks. Printed copies will be provided upon request.

Student Responsibilities

This class will take TWO AP exams in May... We will focus on the mechanics side for the first semester and the Electricity and Magnetism during the second semester. The good news is that using calculus to solve physics problems makes them easier than just algebra. So you will find that this class will challenge you but you will find the end result very satisfying as you will have the confidence to solve complex problems.

Late work

Please talk to me if you are not done with something or if you were absent... We will come up with a solution and make sure you complete the work needed and get it turned in for points. The worst thing you can do is not turn it in and not talk to me. This will result in a zero in the gradebook.

Assessments and Assignments

Students will complete assessments during each unit of study to assess their understanding. Students will complete the CUSD Common Final at the end of the first and second semesters. The Common Final will count for 20% of the student's final semester grade in grades 9-12 and 10% in grades 7-8 (some exceptions may apply at the Junior High level). Common finals will be in ELA, Math, Science, Social Science, and World Language.

Final exams will be given during the CUSD Jr High/High School Early Dismissal days in December and May, as identified on the [District Calendar](#).

If students are requested to participate in a survey, the survey questions will be provided to parents/guardians seven days before student contact.

Grading

Grade Percentage

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

Quarter grades

The quarter grade is determined by 3 weighted categories (weighted means that certain categories have more of an impact on your grade than others).

Homework/Classwork category is worth 10% of your grade

Quizzes and Labs are worth 40% of your grade

Tests are worth 50% of your grade

Usually we will have multiple labs and quizzes throughout the quarter. There will only be a few tests and those are usually given at the end of each unit.

Semester grades

Semester grades are calculated using 40/40/20: Each quarter accounts for 40% of the semester grade and the final exam accounts for the remaining 20%.

Units of study

Units for SCI435A AP Physics C: Mechanics and Electricity/Magnetism

Unit 1 - Kinematics

Unit 2 - Newton's Laws of Motion

Unit 3 - Work, Energy and Power

Unit 4 - Systems of Particles and Linear Momentum

Unit 5 - Rotation

Unit 6 - Oscillations

Unit 7 - Gravitation

Unit 8 - Electrostatics

Unit 9 - Conductors, Capacitors, Dielectrics

Unit 10 - Magnetism, Fields, Electro-Magnetism

**An asterisk will indicate a unit of study containing sexually explicit materials per legislative definitions.*



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Building Principal: Jayson Phillips, phillips.jayson@cusd80.com

Teacher: Benjamin Wilson, wilson.benjamin@cusd80.com

Parent/Guardian

Acknowledgment

Parents/Guardians should indicate if they "Acknowledge" or have a "Potential Conflict" with their student's participation in the following units by checking the appropriate box for each unit of study listed. Students cannot opt out of a standards-based unit. Marking "Potential Conflict" will prompt the teacher to make contact regarding assignment alternatives.

Unit of study	Acknowledge	Potential Conflict
Unit 1 - Kinematics	<input type="checkbox"/>	<input type="checkbox"/>
Unit 2 - Newton's Laws of Motion	<input type="checkbox"/>	<input type="checkbox"/>
Unit 3 - Work, Energy and Power	<input type="checkbox"/>	<input type="checkbox"/>
Unit 4 - Systems of Particles and Linear Momentum	<input type="checkbox"/>	<input type="checkbox"/>
Unit 5 - Rotation	<input type="checkbox"/>	<input type="checkbox"/>
Unit 6 - Oscillations	<input type="checkbox"/>	<input type="checkbox"/>
Unit 7 - Gravitation	<input type="checkbox"/>	<input type="checkbox"/>
Unit 8 - Electrostatics	<input type="checkbox"/>	<input type="checkbox"/>
Unit 9 - Conductors, Capacitors, Dielectrics	<input type="checkbox"/>	<input type="checkbox"/>
Unit 10 - Magnetism, Fields, Electro-Magnetism	<input type="checkbox"/>	<input type="checkbox"/>

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By signing and returning this form, the parent/guardian acknowledges they have reviewed the resources and units of the study included in the syllabus.

- As the parent/guardian, I understand that I may contact the teacher if I have questions about the resources, content, or units of study.
- As the parent/guardian, I understand I can check my student's grades in Infinite Campus anytime during the school year.

Student name (printed)

Student signature

Parent/Guardian name (printed)

Parent Signature

Date

Please return this page to your student's teacher.