

## Community High School District 99 AP SCIENCE COURSES

COURSE	AP Biology	AP Chemistry	AP Environmental Science	AP Physics C: Mechanics	AP Physics C: Mech, Elec & Mag	
<b>ELIGIBLE GRADE LEVEL</b>	11th & 12th	11th & 12th	(Select 10 <sup>th</sup> ), 11th & 12th	12th	12th	
<b>INSTRUCTOR</b>	<b>Jennifer Wolf</b> jwolf@csd99.org	<b>Michelle Sachtleben</b> msachtleben@csd99.org	<b>Kathleen Troyer</b> ktroyer@csd99.org	<b>Drew Sobczak</b> dsobczak@csd99.org	<b>Stephen Zownorega</b> szownorega@csd99.org	
<b>QUESTIONS</b>	1.) What is the average out of class time commitment?	6-8 hours per week depending on the unit being covered. More time needed depending on student background.	6-8 hours per week depending on the unit being covered.	2-5 hours per week depending on student background.	2-5 hours per week depending on student background.	6-8 hours per week More time may be needed depending on student background.
	2.) What course(s) does this class correspond to in college?	An introductory biology course for biology majors	This class will correspond to a typical freshman chemistry course	This class will correspond to a typical freshman environmental science course	The first semester of a calculus based introductory physics class. We take what colleges would do within 1 semester and take an entire high school year to understand those concepts with strategies and engineering activities built in to help students find success	The first 2 semesters of a calculus-based introductory physics course at university level. Mechanics is taught during the first semester. Electricity and Magnetism is taught during the second semester
	3.) What are obstacles that students may encounter in this class?	The expectation is that students read the chapters that correspond to the units being covered prior to coming to class. Outside work is necessary in order to do well in the class.	There is an expectation that students are very comfortable with and have reviewed the chemistry they learned in their sophomore level class. If that is not done prior to taking AP Chem, students often struggle.	There is an expectation that students have an interest in the environment, are willing to hold classroom discussions, and complete the assigned homework on time. A strong work ethic and willingness to work with others is necessary to succeed in this class. Students may struggle with writing explanations for lab related work.	There is an expectation of independence on the student's part. Depending on the student background assignments are only tools to help understanding and some might need more time processing these than others. Due to a wide range of students in the class - many resources (specifically the book) are essential to help students fill in the gaps they might still have from their junior level physics class.	The expectation is that students are completely fluent in algebra and have a good grounding in kinematics, forces, momentum, and energy from their Physics 400 course. Students who have weaknesses in these topics may struggle with the pace of the class. Outside work is necessary for everyone in order to do well.

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4.) What prerequisite courses have students typically taken to prepare for this class?	Most students have a 400 level background in science and math. Students who come to AP biology with a 300 level background will have some gaps in their background knowledge, which, with additional outside work on the part of the student can easily be "filled in".	Most students take chemistry 400 and receive no lower than B's both semesters. A chemistry 300 student should have received straight A's and it is highly suggested that they take the AP Chemistry Summer Bridge course. Students are also typically in pre-calc or higher.	Completion of biology, chemistry and physics. Some students are taking concurrently with <b>CHEM 400</b> . Other students are concurrently taking with Physics 400.	Completion of physics 300/400 and a desire to continue study in physics. Students who earned an A/B in physics 300 or students who earned an A/B/C in physics 400. No enrollment in calculus is required.	Physics 400 and concurrent enrollment in or completion of calculus is prerequisite. The students in the class all are enrolled in at least Calc AB; most are in Calc BC and some are in Calc 3.
5.) What is done to prepare students to take the AP Exam?	The rigorous course load allows students to cover all topics covered on the AP exam throughout the course of the year. Additional supports for the AP exam include the following: All Unit Tests are written in the AP testing style. All labs conducted are "suggested" by the AP College Board and involve multiple levels of inquiry and analysis as seen on the AP test. AP practice exam is offered in spring for interested students, testing strategies and intensive reviews for the test are done throughout the course of the year.	The rigorous course load allows students to cover all the topics needed to prepare them for the AP test. Each unit test is structured similarly to the AP test. The pacing of the AP class also allows a roughly two-week review period before the AP test.	This course covers all topics required for the AP Environmental Science exam. Unit tests are written in AP style format and include multiple choice and free response type questions. Practice exams will be given in March to prepare students to take the exam in May. The six themes of AP Environmental Science, as outlined on College Board and incorporated into each of the 7 units of the course.	The class covers all topics required for the AP Physics C: Mechanics exam. Unit tests are written in AP style and include both the MC and free response questions. The last 2 weeks students spend time trying AP Practice exams and review before the big test in May.	The course covers all topics required on the AP test. All Unit Tests are written in the AP testing style. AP practice exam is offered in March/April for interested students. Students have two weeks of intensive in-class review immediately before the AP test.