**Academy AP Physics I / Mechanics C**

**Carl Pfaff Room 99 Fall Semester**

**Extra Help – Hours from 7:30 – 8:15 daily and during AO**

**Texts:** College Physics. Wilson, Buffa, Lou.

Physics for Scientists and Engineers. Tipler and Mosca

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 **Topic Wilson Chapter Tipler**

Vectors , Kinematics 2 & 3 1 – 3

Forces, Newton’s Laws, Circular Motion 4 & 7 4 & 5

Work and Energy 5 6 & 7

Linear Momentum and Collisions 6 8

**Assessment:**

Homework quiz 15%

Quizzes 20 %

Labs 10 %

Tests 40 %

Fall Midterm Exam 15 %

**Course Overlap:** The Physics I and AP Physics C Mechanics courses have approximately 70 learning objectives or topics that overlap and then Physics C Mechanics has approximately 12 topics that are unique to that course. When this course was introduced and approved by the County, it was due to the amount of overlap and similarity that exists between the courses. Due to the Mechanics C only topics, the AP Physics C Mechanics course will be graded as follows.

***In this Physics / I Mech C combination course, students will receive a separate grade for each course. The grade for the AP Physics I course will be calculated according to the percentages above and will be reflective of most of their everyday activities. ALL THESE PHYSICS I GRADES WILL ALSO BE THE FOUNDATION OF THE GRADE THAT STUDENT’S WILL RECEIVE FOR THE AP PHYSICS C MECHANICS GRADE. The rest of the AP Physics C mechanics grade will come from homework quizzes and regular quizzes that cover the calculus based learning objectives that are mandated by the Physics C mechanics curriculum content.***

**Physics C Mechanics Grade Computation:**

Physics I course grade 85%

Physics C only Homework Quizzes 5%

Physics C only Quizzes 10%

Students will receive a grade for AP Physics I in December giving them ½ credit as well as a separate grade for AP Physics C Mechanics giving them ½ credit. The spring semester grades will only include assignments from the spring, like almost every other course students take, and they will receive ½ credit for AP Physics I and ½ credit for AP Physics C Mechanics in May.

**Homework quizzes** are short, straight forward assessments given on a completely random basis. They are designed to keep students studying regularly. There will be several of these each semester, but students need to understand that failure to do homework regularly will impact every aspect of their overall grade.

**Quizzes** are a more traditional assessment that will be announced ahead of time, at least a few days if not more. These quizzes are comprised of actual AP questions from both the Physics I and Physics C Mech released exams and they will be graded according to the College Board rubrics.

**Labs** will vary from short in class investigations to longer, more inquiry based and rigorous investigations that may take a few days or longer to complete. Most of the labs require a complete data analysis using data and graphs.

**Tests and the Midterm** are also comprised of Released AP Exam Questions, both multiple choice and free response, and are graded according to the College Board rubrics.

**A true Bell curve us used to assign numerical grades for all quizzes and tests due to the difficulty of the questions and the accumulation of points.** On the AP exam, a student who earns roughly 70% of the possible points will be among the best in the world taking that exam, and will receive a 4 or 5, the equivalent of a college A or B. Test and quiz averages below 70% would mean the best students taking this course will be carrying D or F averages. The use of AP questions and AP style questions is paramount to the success of your student on the AP exam, and this curving method has worked for me for almost 20 years; with my best students hovering above the class average.