

# AP Physics C

		Description of Average Weekly Outside Requirements	
<p><b>Main Topics</b> (What main ideas/concepts are covered):</p> <ul style="list-style-type: none"> <li>• Kinematic</li> <li>• Newton’s Laws of Motion</li> <li>• Work, Energy, Power</li> <li>• System of Particles, and linear Momentum</li> <li>• Rotation</li> <li>• Oscillation</li> <li>• Gravitation</li> </ul>	<p><b>Rationale</b> (Why a student should take this course):</p> <p>The main reasons to take AP Physics C are: Earn college credit, get exposed to a college level course, and learn the study skills that are needed to be successful in all college level classes.</p>	<p><b>Reading</b> (Text, document, etc.):</p> <ul style="list-style-type: none"> <li>• Textbook</li> <li>• Notes</li> </ul> <p style="text-align: center;"><b>Average of 1 hour per week of reading. May be more depending on level of understanding.</b></p>	<p><b>Written</b> (Terms, questions, outlines, free response, etc.):</p> <ul style="list-style-type: none"> <li>• AP Classroom Progress Checks</li> <li>• AP Classroom guided notes/videos</li> <li>• Free Response practice</li> <li>• Multiple Choice Practice</li> </ul> <p style="text-align: center;"><b>Average of 2 ½ hours per week of problem solving. May be more depending on level of understanding.</b></p>
<p><b>Grade Composition</b> (How grades are determined):</p> <ul style="list-style-type: none"> <li>• Quiz</li> <li>• Lab reports</li> <li>• Tests</li> <li>• Assignments</li> </ul>	<p><b>Skill Development</b> (Skills developed in this course and how):</p> <ul style="list-style-type: none"> <li>• Visual Representation</li> <li>• Question and Method</li> <li>• Representing Data and Phenomena</li> <li>• Data analysis</li> <li>• Theoretical Relationships</li> <li>• Mathematical Routines</li> <li>• Argumentation</li> </ul>	<p><b>Sample Textbook Excerpt:</b></p> <p>“The velocity of a particle moving in a straight line can be obtained if its position as a function of time is known. Mathematically, the velocity equals the derivative of the position with respect to time. It is also possible to find the position of a particle if its velocity is known as a function of time. In calculus, the procedure used to perform this task is referred to either as integration or as finding the antiderivative. Graphically, it is equivalent to finding the area under a curve.”</p> <p style="text-align: center;"><i>Physics for Scientists and Engineers</i></p>	
<p><b>Required Skills</b> (Skills necessary to be successful in this course):</p> <ul style="list-style-type: none"> <li>• Strong math and reading skills.</li> <li>• Students should have taken or be concurrently taking calculus.</li> </ul>			