

# South Hadley High School

"A Tradition of Excellence"

*We pledge to create a challenging and supportive academic community in which each member strives to develop his/her potential, to become a life-long learner, and to act as a responsible citizen in a diverse and global society.*

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## Physics Syllabus

<b>Course Description / Prerequisites</b> <b># 5230 Physics (6 credits Full Year)</b>
<i>Prerequisites:</i> A minimum grade of C in Algebra II or IMP III This course provides a broad yet rigorous introduction to physics. Active participation in this course sharpens the student's skills as an observer and experimenter, develops the ability to analyze and interpret results, and helps students understand and appreciate daily events and natural phenomena.
<b>Course Objectives / Outcomes / Expectations/ Topics</b>
Students should understand the following by the end of the course: <ul style="list-style-type: none"><li>o Kinematics in one, two, and three dimensions</li><li>o Vectors</li><li>o Dynamics: Force and motion</li><li>o Circular motion</li><li>o Gravity</li><li>o Work and energy</li><li>o Momentum</li><li>o Bodies in equilibrium</li><li>o Vibrations, wave, and sound</li><li>o Electromagnetic waves</li><li>o Light and geometric optics</li><li>o Electricity including simple circuits</li></ul>
<b>South Hadley High School's Learning Expectations</b>
<ul style="list-style-type: none"><li>o LE 1: Read, write, and communicate effectively</li><li>o LE 2: Define, analyze, and solve complex problems and communicate results</li><li>o LE 3: Study and work productively both independently and in groups</li><li>o LE 5: Acquire, apply, integrate, analyze, and synthesize knowledge</li></ul>
<b>Text and Resources Required</b>
<ul style="list-style-type: none"><li>o <i>Holt: Physics</i> by Serway and Faughn (2000)</li></ul>
<b>Grading / Assessment Policy / Homework / Make-Up / Extra Help</b>
<ul style="list-style-type: none"><li>o Tests (50%), Labs (30%), and Homework (20%) <i>all assignments can be redone at the discretion of the student or teacher</i></li><li>o Homework is used to assess the students immediate understanding of the material</li><li>o Extra help is available at on an at need basis</li><li>o <i>All assignments can be redone at the discretion of the teacher and the student</i></li></ul>
<b>Attendance / Behavior / Academic Honesty</b>
<ul style="list-style-type: none"><li>o <i>See Student Handbook</i></li></ul>