

AP Physics C: Mechanics

**Instructor:**

Mr. David Hovan

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**Course Description:**

345 AP Physics C: Mechanics      Grade 12      1 Credit

The College Board determines the syllabus for this course. The AP Physics C exam involves problem solving using calculus based mathematics. Topics to be covered include kinematics, energy, momentum, and rotational dynamics. The laboratory is an integral part of the course, involving self-directed study. It is a second year high school physics course. Students are expected to take the AP Physics C, Mechanics exam. PREREQUISITES: Completion of, or concurrent enrollment in, Calculus; grade of B or better in AP Physics B, or grade of B+ or better in Physics.

**Required Texts:**

**Fundamentals of Physics Extended, 8th Edition**

David Halliday, University of Pittsburgh

Robert Resnick, Rensselaer Polytechnic Institute

Jearl Walker, Cleveland State University

ISBN: 978-0-471-75801-3

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**The Fabric of the Cosmos: Space, Time, and the Texture of Reality (Paperback)**

Brian Greene, Columbia University

ISBN: 978-0-375-72720-7

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**Summer Assignment:**

Your assignment will be to create a reflective journal of "The Fabric of the Cosmos". As you go through the text, one approach you can take is to chronologically organize by chapter interesting quotes, thoughts, questions, and anything else you think would be appropriate to include. Since what one finds "interesting" is subjective to each person, there are no right answers, but make sure to at least include the basic physics concepts from each chapter. For each quote, thought, or question please also cite a page number and if necessary, give enough explanation of the idea so that you could easily reference and discuss the idea. Please also record your journal entries electronically so that you can easily add to them, print them off, or email them to me.

**Thoughts to Consider:**

Because AP Physics C is a challenging course in which the topics build on one another, you are strongly encouraged to freely ask questions in class and seek help immediately. *If you get behind, it is very difficult to catch up.* I look forward to working with each of you throughout the school year. Have a wonderful and restful summer.