



DEERSTREAM

## Physics

### High School (ages 14 and up)

**Physics: Thursdays, 9:15 AM-12:15 PM**

This course is a two semester (1 credit) lab-based introductory course to physics for high school students. Topics covered include Newton's Laws of Motion, Newton's Law of Universal Gravitation, work, energy, and power, waves, sound, and light, electrical potential, electric fields, circuits, resistance, and current, magnetism, and magnetic fields. Class time will be spent in lecture, discussion, group work, and labs.

**Text:** *Discovering Design through Physics*

**Prerequisites:** successful completion of Algebra 1 and Geometry. High School students should be reading and writing at a 9<sup>th</sup> grade level or higher or parents must arrange for appropriate accommodations. Students are expected to maintain an organized notebook, keep track of assignments, and attend the weekly office hour to get help as needed.

**Schedule:** Physics will meet on Thursday mornings from 9:15 AM-12:15 PM at the Chapel Hill Bible Church for lecture, discussion, and labs.

**Homework:** Students should expect to spend an average of four hours a week outside of class reading and studying. Honors students may spend additional time.

**Attendance and Pacing:** Each class will cover a large amount of material, so attendance is crucial for student success. Barring exceptional circumstances, students who miss 5 or more sessions over the course of the year will not be assigned a final grade. Students who miss class are expected to make up missed work.

**Student Expectations:** Physics is a high school level class, and students must be able to function with maturity in their academics as well as in organization, class participation, and work completion. In class, they will be expected to attend carefully to instruction, participate actively, and take notes as needed. Students are expected to complete 4-5 hours of work at home throughout the week. They will be responsible to come to class prepared with background knowledge and completed work as assigned.

**Honors Option:** Students have the option to take this course as an honors course. This will involve additional and/or different assignments that require students to delve deeper into the material.

**Parent Expectations:** Parents agree to provide supervision as needed throughout the course. Some students will require more assistance than others.

**Grades and High School Credit:** Physics is a one credit high school level class, so formal assessments will be conducted and students will receive grades that take into account homework, classwork, projects, quizzes, and tests.