



2018 Honors Physics Summer Course Outline

Course Materials

Students should bring a notebook and pencil. The Learning Center will supply the textbook, laboratory supplies and other supplementary materials. Chromebooks will be used in classes when eBooks or other online materials are needed. The text is Physics by Holt, with teacher "hand-outs," eBook lessons, and other supplements. Effort is made to follow the New Jersey Model Curriculum Project. www.nj.gov/education/modelcurriculum/sci/physics.shtml.

Course Description

This course is an accelerated and intensive study of a high school Physics and is designed to fulfill the credit requirement. Contents include, but are not limited to, a study of the following: motion and vectors, forces, work and energy, momentum and collisions, rotational motions and gravity, rotational equilibrium and dynamics, fluid mechanics, thermodynamics, waves and vibrations, sound, light and reflection, refraction, interference and diffraction, electric forces and fields, electrical energy and capacitance, current and resistance, modern electronics, circuit and circuit elements, magnetism, induction and alternating current, atomic and subatomic physics.

About one quarter of class time will be spent in practical activities which will include hands on lab work with written reports. Grades will be based 70% on tests and projects, and 30% on quizzes, classwork and homework. This course is a six week program, Monday through Friday, four hours each day. The teacher will offer extra help twice a week after class to small groups. The total classroom time is 120 hours, plus any extra time needed.