



PHYSICS 40

Insert Teacher Name

Insert Room Number

Full Year

Insert Period

Insert Email Address

COURSE DESCRIPTION

This course will provide students with a fundamental knowledge of physics. Some of the areas studied include: motion and forces, conservation of energy and momentum, waves, heat and thermodynamics, and electricity and magnetism. The emphasis is on basic concepts, analysis of laboratory data and problem solving. Students in Physics 40 will develop problem-solving abilities. Students will investigate these topics through a variety of classroom activities which include: pre-written and open-ended laboratory experiments; small group discussions; lectures and note taking; viewing videos; learning and applying problem-solving techniques; and relating physics principles to daily experience. Students will understand the role of physics in explaining natural phenomena and in seeking solutions to scientific and technological problems that citizens of the 21st century will face.

COURSE OBJECTIVES

Students will understand that:

- waves have characteristic properties that do not depend on the type of wave.
- Newton's laws predict the motion of most objects.
- the laws of conservation of energy and momentum provide a way to predict and describe the movement of objects.
- electric and magnetic phenomena are related and have many practical applications.

UNITS OF STUDY

- Waves and Optics – Reflection
- Waves and Optics – Refraction
- Waves and Optics – Interference
- Mechanics - Motion and Forces – Kinematics
- Mechanics - Motion and Forces - Dynamics, Circular Motion and Gravitation
- Mechanics - Motion and Forces - Conservation Laws
- Electricity and Magnetism - Static Electricity
- Electricity and Magnetism - Current Electricity
- Electricity and Magnetism – Magnetism

COURSE POLICIES AND REQUIREMENTS

GRADING

Summative Assessments: 100%
Insert Categories/Weighting (ie. Papers – 30%)

Formative Assessments: 0%

Behavioral Characteristics: 0%

Insert Additional Grading Information Here

MATERIALS

Insert Course Materials Here (ie. Textbook, Binder, Calculator, Highlighters)

EXPECTATIONS OF STUDENTS

Insert Course Expectations Here

EXTRA HELP

Insert Course Expectations Here

Insert Additional Information Here