SC615 Physics with Robotics

Year: 1
Credits: 1
Prerequisites: None

This introductory physics course is intended for 9th grade students who may be interested in a technology-related career such as engineering, computer programming, automotive technology, software or game development. Students will learn important concepts in physics such as kinematics, Newtonian mechanics, energy transformations, momentum, gravitation, electricity, waves, light, color and sound. At the same time, students will also learn how to program a simple robotic device in order to model and explore physics concepts.

By the end of this year-long course, students will be able to:

- Demonstrate understanding of kinematics, Newton’s laws, energy, momentum, electricity, and waves.
- Write and edit code in order to solve an engineering problem
- Design and test mathematical models
- Analyze, interpret, and communicate data effectively