



PHY 211: General Physics I

This course and Physics 212 are a one-year calculus-based introduction to the principles of physics and their applications. Topics include vectors, kinematics, Newton's law of motion, work/energy, momentum, and rotational motion. Emphasis is placed on understanding through problem solving. This course is transferable to four-year engineering degrees. Prerequisite: MTH 214 with a grade of C or better. Three lecture hours and three laboratory hours per week. Instructional Support Fee applies. Gen. Ed. Competencies Met: Scientific Reasoning and Discovery.

Course Student Learning Outcomes

1. Apply knowledge of forces, energy, momentum, and torque to solve both numerical and symbolic physics problems.
2. Utilize mathematical tools such as dimensional analysis, vectors, and basic calculus.
3. Model real world situations using physics tools and concepts.
4. Analyze laboratory data, including sources of error.
5. Recognize the power and proper usage of scientific thinking and methods.
6. Solve unfamiliar problem types using familiar techniques, a process which requires critical and abstract thinking.

Credits: 4

Program: Physics