PHY 211 and PHY 211L General Physics: Mechanics, Heat, Sound and Lab (4)

This is an introductory course in mechanics, heat, and sound, which meets for three one-hour lectures and one three-hour laboratory period per week. A student must pass the laboratory portion of any science course to pass the entire course. Prerequisite: MTH 133.

Student Learning Outcomes

Students will:

1. Demonstrate a basic knowledge of various physical laws and how they relate to daily experiences.
2. Demonstrate the acquisition and use of various experimental/laboratory skills that include:
    a. Making complete and accurate observations.
    b. Collecting complete and accurate experimental data.
    c. Drawing reasonable inferences from these observations and data.
    d. Presenting and analyzing, both verbally and in writing, laboratory observations and collected data.

Course Topics

1. Accepted theories of the physical sciences, their implications, and the interaction among science, technology, and society for:
    a. Force/motion
    b. Heat/heat transfer
    c. Energy/work
    d. Fluids

PHY 212 and PHY 212L General Physics: Electricity, Magnetism, Optics and Lab (4)

This is an introductory course in electricity, magnetism, and optics, which meets for three one-hour lectures and one three-hour laboratory period per week. A student must pass the laboratory portion of any science course to pass the entire course. Prerequisite: MTH 133.

Student Learning Outcomes

Students will:

1. Demonstrate a basic knowledge of various physical laws and how they relate to daily experiences.
2. Demonstrate the acquisition and use of various experimental/laboratory skills that include:
    a. Making complete and accurate observations.
    b. Collecting complete and accurate experimental data.
    c. Drawing reasonable inferences from these observations and data.
    d. Presenting and analyzing, both verbally and in writing, laboratory observations and collected data.

Course Topics

1. Accepted theories of the physical sciences, their implications, and the interaction among science, technology, and society for:
    a. Electricity
    b. Magnetism
    c. Optics
    d. Nuclear physics