PHY 121 - GENERAL PHYSICS I

Course Description

This is the first course in a two semester sequence in General Physics. Topics include kinematics, Newton's Laws, conservation of momentum, conservation of energy, rotational motion, oscillations, and fluids.
The laboratory covers the preceding topics in parallel with the lecture whenever possible. The development of conceptual understanding and problem solving skills is emphasized. Group 1 lab course.

Credit Hours

4

Contact Hours

6

Lecture Hours

4

Required Prerequisites

MTH 122

Corequisites

PHY 121L

Recommended Prerequisites or Skills Competencies

ENG 111

General Education Outcomes supported by this course

Quantitative Reasoning

Course Learning Outcomes

Knowledge:

- Define: physical quantities, physical laws, and physical process.

Application:

- Determine relevant information.
- Determine which scientific and mathematical principles apply.
- Apply appropriate conceptual problem-solving strategies.
- Apply appropriate quantitative problem-solving strategies.

Integration:

- Extend the learned physical concepts to novel problem-solving scenarios.

Human Dimension:

- Interact with lab partners to achieve the given objectives.

Caring - Civic Learning:

- Relate everyday observations of the natural world to physics concepts.
- Learn to care more deeply about the natural world.

Learning How to Learn:

- Learn that they CAN understand seemingly complex physical concepts.
- Learn that they CAN problem-solve beyond memorized algorithms.