



Course Description

PHY1004 | Physics with Applications 1 | 3.00 credits

Emphasizes the basic concepts and principles and their practical applications. Designed specifically for students in technical studies and for others wishing to strengthen their physics background before taking advanced courses. Prerequisite: MAT1033 with a grade of "C" or better; Corequisite: PHY1004L with a grade of "C" or better.

Course Competencies

Competency 1: The student will demonstrate their understanding of basic physics concepts and principles by:

1. Applying mathematical problem-solving skills in solving physics equations
2. Analyzing and interpreting data from experimental observations to draw conclusions
3. Communicating scientific ideas effectively through written reports and presentations

Competency 2: The student will apply the principles of physics in practical applications by:

1. Designing and conducting experiments to investigate real-world phenomena
2. Applying physics concepts to solve engineering problems
3. Developing and implementing strategies to optimize the efficiency of physical systems

Competency 3: The student will strengthen their physics background through active engagement with the subject matter by:

1. Participating in hands-on laboratory activities to reinforce theoretical concepts
2. Collaborating with peers in group discussions and problem-solving sessions
3. Engaging in self-directed learning through research and exploration of additional physics resources

Learning Outcomes

- Solve problems using critical and creative thinking and scientific reasoning
- Formulate strategies to locate, evaluate, and apply information
- Use computer and emerging technologies effectively