

# PHY - PHYSICS (PHY)

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## **PHY 0103 Pre Physics (3-1-3)**

An introductory remedial physics course that aims to strengthen students' background in physics and prepare them for the regular physics courses. It covers fundamental physics principles such as units, measurements, vectors and scalars, linear motion, forces, Newton's laws of motion, work and energy, electric charge, electric force, Coulomb's law, electric current and resistance, Ohm's law, and mechanical waves.

## **PHY 1103 Physics I (3-1-3)**

An introductory level physics course that is essential for all Engineering programs. It covers many of the fundamental principles of physics such as units of measurement, linear motion, circular motion and angular motion, forces and Newton's laws of motion, work and energy, collisions and conservation laws, momentum. Laboratory work is required to reinforce and stress the importance of these principles using the experimental method for investigating and reporting results.

**Prerequisites:** PHY 0103

## **PHY 1203 Physics II (3-1-3)**

A second course of introductory level physics course that is key for several engineering programmes. It covers many of the fundamental principles of physics such as electric charge and electrostatic fields, Coulomb's law and electric potential, electric current and magnetic fields, Ampere's law and Faraday's law of induction, optics, sound and mechanical waves. Laboratory work, utilising experimental methodology and written reports, is used to reinforce these principles.

**Prerequisites:** PHY 1103