



University of Pretoria Yearbook 2016

Physics 154 (PHY 154)

Qualification	Undergraduate
Faculty	Faculty of Natural and Agricultural Sciences
Module credits	8.00
Programmes	BSc Extended programme - Biological and Agricultural Sciences
Service modules	Faculty of Education
Prerequisites	PHY 143
Contact time	4 lectures per week, Foundation Course, 1 practical per week
Language of tuition	English
Academic organisation	Physics
Period of presentation	Semester 1

Module content

The main topic in this module is Electricity, Sound, Optics, and Modern Physics.

Static Electricity: Electric charge and force, electric field, the electric energy, electric potential, conservation of electrical energy.

Flow of charge: Capacitors, application of charge flow to nerves.

Sound: Vibrations, waves in unconfined and confined media, applications to human hearing.

Optics: Reflection, refraction, applications to optometry and ophthalmology.

Atomic physics: Atomic models, x-rays.

Nuclear physics: The stable atomic nucleus, radioactivity, nuclear spin and applications to medical diagnostics.

The information published here is subject to change and may be amended after the publication of this information. The [General Regulations \(G Regulations\)](#) apply to all faculties of the University of Pretoria. It is expected of students to familiarise themselves well with these regulations as well as with the information contained in the [General Rules](#) section. Ignorance concerning these regulations and rules will not be accepted as an excuse for any transgression.