



University of Pretoria Yearbook 2016

Physics 154 (PHY 154)

Qualification Undergraduate

Faculty [Faculty of Natural and Agricultural Sciences](#)

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.

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

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