

# University of Pretoria Yearbook 2018

## Electrodynamics 705 (PHY 705)

**Qualification** Postgraduate

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

**Module credits** 15.00

**Prerequisites** No prerequisites.

**Contact time** 6 lectures per week

**Language of tuition** Module is presented in English

**Department** Physics

**Period of presentation** Semester 2

### Module content

Conservation laws in electrodynamics; electromagnetic waves in vacuum, dielectrics, conductors and wave guides; potentials and fields, gauge transformations, Liénard-Wiechert potentials; electric and magnetic dipole radiation, radiation by a point charge; relativistic electrodynamics.

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.