

University of Pretoria Yearbook 2016

Solid-state lighting 732 (ELV 732)

Qualification Postgraduate

Faculty [Faculty of Engineering, Built Environment and Information Technology](#)

Module credits 32.00

Programmes [BEngHons Electronic Engineering](#)

Prerequisites No prerequisites.

Contact time 2 lectures per week

Language of tuition English

Academic organisation Electrical, Electronic and Com

Period of presentation Semester 1

Module content

Photometry (quantities, units and definitions), light and vision (photopic, scotopic and mesopic), solid-state light sources, LED and OLED sources (luminous efficacy, rated life, thermal dependence, etc.), drive and control electronics for SSL (linear and on-linear dimming, thermal and light feed-back control, luminaire fundamentals and design, lighting design (CAD), specific lighting applications (task and ambient, indoor and outdoor, safety and security, automotive), SSL measurements (photometric, colorimetric, electrical and thermal). Cost-effective energy efficiency: principles and life cycle cost calculations. International standards and testing.

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.