

University of Pretoria Yearbook 2019

Analogue electronics 310 (ENE 310)

Qualification	Undergraduate
Faculty	Faculty of Engineering, Built Environment and Information Technology
Module credits	16.00
Programmes	BEng Computer Engineering BEng Computer Engineering Engage BEng Electrical Engineering BEng Electrical Engineering Engage BEng Electronic Engineering BEng Electronic Engineering Engage
Prerequisites	ELI 220 GS
Contact time	1 tutorial per week, 3 lectures per week, 1 practical per week
Language of tuition	Separate classes for Afrikaans and English
Department	Electrical, Electronic and Computer Engineering
Period of presentation	Semester 1

Module content

Amplifier concepts: gain, input impedance, output impedance, bandwidth, cascaded stages. Amplifier power dissipation and power efficiency. Operational amplifiers: non-ideal, limitations, low power, programmable. Diode operational circuits: Logarithmic amplifiers, peak detector, clamp, absolute value, voltage regulators. Feedback and stability in amplifiers. Operational circuits: Instrumentation amplifiers, multipliers, oscillators, filters, translinear circuits, and sampling electronics.

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.