University of Pretoria Yearbook 2022

Advanced electronics 410 (ENE 410)

Qualification	Undergraduate
Faculty	Faculty of Engineering, Built Environment and Information Technology
Module credits	16.00
NQF Level	08
Programmes	BEng (Electronic Engineering)
	BEng (Electronic Engineering) ENGAGE
Prerequisites	ENE 310 GS
Contact time	1 practical per week, 1 tutorial per week, 3 lectures per week
Language of tuition	Module is presented in English
Department	Electrical, Electronic and Computer Engineering
Period of presentation	Semester 1

Module content

This module covers bipolar and Field Effect Transistor (FET) amplifier design (bias and frequency response of small-signal loaded single-stage, multistage, differential stage, and feedback amplifiers), amplifier figure of merit parameters, including total harmonic distortion, large-signal power amplifiers, and communication electronics (RF component modelling, two-port models for RF networks, matching networks, small-signal narrowband RF amplifiers).