

University of Pretoria Yearbook 2019

Advanced electronics 410 (ENE 410)

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

Module content

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. Communication electronics: RF component modelling, two-port models for RF networks, matching networks, small signal narrowband RF amplifiers, RF oscillators.

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