

University of Pretoria Yearbook 2017

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 practical per week, 1 tutorial per week, 3 lectures per week |
| Language of tuition | Separate classes for Afrikaans and English |
| Academic organisation | Electrical, Electronic and Com |
| 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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