

University of Pretoria Yearbook 2022

Mobile communication 732 (ETR 732)

Qualification Postgraduate

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

Module credits 32.00

NQF Level 08

Prerequisites No prerequisites.

Contact time 32 contact hours per semester

Language of tuition Module is presented in English

Department Electrical, Electronic and Computer Engineering

Period of presentation Semester 2

Module content

Introduction to wireless, cellular, digital PCS mobile radio communication. Radio propagation and cellular engineering concepts. Digital MODulation-DEModulation (MODEM) techniques (cellular modulation standards). Error control coding for fading channels. Access technologies (FDMA, TDMA, CDMA, OFDMA, SDMA and hybrids). Spread-spectrum systems and concepts. Diversity techniques for mobile wireless radio systems. Cellular and wireless systems engineering (mobile cellular design). Adaptive equalisers for fading channels.

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