

University of Pretoria Yearbook 2021

Microprocessors 310 (EMK 310)

Qualification Undergraduate

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

Module credits 16.00

NQF Level 07

Programmes [BEng Computer Engineering](#)

[BEng Computer Engineering ENGAGE](#)

[BEng Electrical Engineering](#)

[BEng Electrical Engineering ENGAGE](#)

[BEng Electronic Engineering](#)

[BEng Electronic Engineering ENGAGE](#)

Prerequisites ERS 220 GS, ELI 220 GS, ENE 310/ ENE 310#

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

Hardware based introduction to system designing microprocessors. General microprocessor architecture assembly language and limited C embedded code development, with specific focus on a RISC (Microchip PIC 18) and MIPS (Microchip PIC 32) type processor, memory interfacing and address decoding, microprocessor input/output and interfacing, general programming concepts, general microprocessor system design principles, current trends and new processors exposure to development boards and integrated development environments.

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