

University of Pretoria Yearbook 2022

Mechatronics and control 410 (MBB 410)

Qualification	Undergraduate
Faculty	Faculty of Engineering, Built Environment and Information Technology
Module credits	16.00
NQF Level	08
Programmes	BEng (Mechanical Engineering) BEng (Mechanical Engineering) ENGAGE
Prerequisites	MVR 320 GS
Contact time	2 practicals per week, 3 lectures per week
Language of tuition	Module is presented in English
Department	Mechanical and Aeronautical Engineering
Period of presentation	Semester 2

Module content

Sensors and Actuators: Basics behind the most common sensors and actuators. Signal conditioning: Basic understanding of the use of analogue electronic components and power supplies. Sampling theory: Analogue-to-digital conversion, the effect of aliasing and the design of anti-aliasing filters. Digital: Basic understanding of digital communication. Digital control: Programming a microcontroller, and the implementation of control in discrete time systems.

The regulations and rules for the degrees published here are subject to change and may be amended after the publication of this information.

The [General Academic Regulations \(G Regulations\)](#) and [General Student Rules](#) apply to all faculties and registered students of the University, as well as all prospective students who have accepted an offer of a place at the University of Pretoria. On registering for a programme, the student bears the responsibility of ensuring that they familiarise themselves with the General Academic Regulations applicable to their registration, as well as the relevant faculty-specific and programme-specific regulations and information as stipulated in the relevant yearbook. Ignorance concerning these regulations will not be accepted as an excuse for any transgression, or basis for an exception to any of the aforementioned regulations.