

University of Pretoria Yearbook 2022

Calculus 258 (WTW 258)

Qualification	Undergraduate
Faculty	Faculty of Natural and Agricultural Sciences
Module credits	8.00
NQF Level	06
Programmes	BEng (Mechanical Engineering) BEng (Chemical Engineering) BEng (Chemical Engineering) ENGAGE BEng (Civil Engineering) BEng (Civil Engineering) ENGAGE BEng (Computer Engineering) BEng (Computer Engineering) ENGAGE BEng (Electrical Engineering) BEng (Electrical Engineering) ENGAGE BEng (Electronic Engineering) BEng (Electronic Engineering) ENGAGE BEng (Industrial Engineering) BEng (Industrial Engineering) ENGAGE BEng (Mechanical Engineering) ENGAGE BEng (Metallurgical Engineering) BEng (Metallurgical Engineering) ENGAGE BEng (Mining Engineering) BEng (Mining Engineering) ENGAGE
Service modules	Faculty of Engineering, Built Environment and Information Technology
Prerequisites	WTW 158 and WTW 164
Contact time	1 tutorial per week, 2 lectures per week
Language of tuition	Module is presented in English
Department	Mathematics and Applied Mathematics
Period of presentation	Semester 1

Module content

Calculus of multivariable functions, directional derivatives. Extrema. Multiple integrals, polar, cylindrical and spherical coordinates. Line integrals and the theorem of Green. Surface integrals and the theorems of Gauss and Stokes.

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