



University of Pretoria Yearbook 2016

Calculus 258 (WTW 258)

Qualification	Undergraduate
Faculty	Faculty of Natural and Agricultural Sciences
Module credits	8.00
Programmes	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 BEng Mechanical Engineering Engage BEng Metallurgical Engineering BEng Metallurgical Engineering Engage BEng Mining Engineering BEng Mining Engineering Engage BSc Chemistry BSc Environmental and Engineering Geology BSc Environmental Sciences BSc Mathematical Statistics BSc Mathematics BSc Meteorology BSc Physics



Service modules	Faculty of Engineering, Built Environment and Information Technology
Prerequisites	WTW 158 and WTW 164
Contact time	2 lectures per week, 1 tutorial per week
Language of tuition	Both Afr and Eng
Academic organisation	Mathematics and Applied Maths
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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