

University of Pretoria Yearbook 2021

Calculus 258 (WTW 258)

Qualification Undergraduate

Faculty Faculty of Natural and Agricultural Sciences

Module credits 8.00

NQF Level 06

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 Mathematics

BSc Meteorology

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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