

University of Pretoria Yearbook 2020

Vector analysis 248 (WTW 248)

Qualification	Undergraduate
Faculty	Faculty of Natural and Agricultural Sciences
Module credits	12.00
Programmes	BCom Statistics and Data Science BEd Senior Phase and Further Education and Training Teaching BSc Applied Mathematics BSc Chemistry BSc Engineering and Environmental Geology BSc Geology BSc Mathematical Statistics BSc Mathematics BSc Physics
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Education
Prerequisites	WTW 218
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 2

Module content

Vectors and geometry. Calculus of vector functions with applications to differential geometry, kinematics and dynamics. Vector analysis, including vector fields, line integrals of scalar and vector fields, conservative vector fields, surfaces and surface integrals, the Theorems of Green, Gauss and Stokes with applications.

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