



# University of Pretoria Yearbook 2018

## Calculus 258 (WTW 258)

<b>Qualification</b>	Undergraduate
<b>Faculty</b>	Faculty of Natural and Agricultural Sciences
<b>Module credits</b>	8.00
<b>Programmes</b>	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
<b>Service modules</b>	Faculty of Engineering, Built Environment and Information Technology
<b>Prerequisites</b>	WTW 158 and WTW 164
<b>Contact time</b>	1 tutorial per week, 2 lectures per week
<b>Language of tuition</b>	Separate classes for Afrikaans and English
<b>Department</b>	Mathematics and Applied Mathematics
<b>Period of presentation</b>	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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