



# University of Pretoria Yearbook 2017

## 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 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>	2 lectures per week, 1 tutorial per week
<b>Language of tuition</b>	Separate classes for Afrikaans and English
<b>Academic organisation</b>	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.

---

The information published here is subject to change and may be amended after the publication of this information. The [General Regulations \(G Regulations\)](#) apply to all faculties of the University of Pretoria. It is expected of students to familiarise themselves well with these regulations as well as with the information contained in the [General Rules](#) section. Ignorance concerning these regulations and rules will not be accepted as an excuse for any transgression.