

## University of Pretoria Yearbook 2018

## Precalculus 133 (WTW 133)

Qualification	Undergraduate
Faculty	Faculty of Natural and Agricultural Sciences
Module credits	8.00
Programmes	BCom Extended programme
	BEd Intermediate Phase Teaching
	BEd Senior Phase and Further Education and Training Teaching
	BSc Extended programme - Biological and Agricultural Sciences
	BSc Extended programme - Mathematical Sciences
	BSc Extended programme - Physical Sciences
Service modules	Faculty of Engineering, Built Environment and Information Technology
	Faculty of Education
	Faculty of Economic and Management Sciences
	Faculty of Health Sciences
Prerequisites	BSc and BCom students: At least 3 (40-49%) in Mathematics in the Grade 12 examination and must be taken concurrently with WTW133
Contact time	1 practical per week, 3 lectures per week, Foundation Course
Language of tuition	Module is presented in English
Department	Mathematics and Applied Mathematics
Period of presentation	Semester 1

## **Module content**

Real numbers, elementary set notation, exponents and radicals. Algebraic expressions, fractional expressions, linear and quadratic equations, inequalities. Coordinate geometry: lines, circles. Functions: definition, notation, piecewise defined functions, domain and range, graphs, transformations of functions, symmetry, even and odd functions, combining functions, one-to-one functions and inverses, polynomial functions and zeros. Sequences, summation notation, arithmetic, geometric sequences, infinite geometric series, annuities and instalments. Degrees and radians, unit circle, trigonometric functions, fundamental identities, trigonometric graphs, trigonometric identities, double-angle, half-angle formulae, trigonometric equations, applications.

This module is only offered in English at the Mamelodi Campus for the BSc Extended programme. At the Hatfield and Groenkloof campuses it is offered in English and Afrikaans.



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