

University of Pretoria Yearbook 2016

Mathematics 144 (WTW 144)

Qualification Undergraduate

Faculty [Faculty of Natural and Agricultural Sciences](#)

Module credits 8.00

Programmes [BSc Extended programme - Biological and Agricultural Sciences](#)

Prerequisites WTW 133

Contact time Foundation Course, MAMELODI, 1 tutorial per week, 3 lectures per week

Language of tuition English

Academic organisation Mathematics and Applied Maths

Period of presentation Semester 2

Module content

Functions: Rate of change, exponential functions, the natural logarithm, exponential growth and decay, proportionality, power functions, fitting formulas to data. Rates of change and the derivative: Instantaneous rate of change, the derivative function, interpretations of the derivative, the second derivative.

Differentiation: Formulas and rules, applications, extremes of a function. All topics are studied in the context of applications.

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