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# University of Pretoria Yearbook 2021

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## Mathematics 144 (WTW 144)

<b>Qualification</b>	Undergraduate
<b>Faculty</b>	<a href="#">Faculty of Natural and Agricultural Sciences</a>
<b>Module credits</b>	8.00
<b>NQF Level</b>	05
<b>Programmes</b>	<a href="#">BEd Senior Phase and Further Education and Training Teaching</a> <a href="#">BSc extended programme - Biological and Agricultural Sciences</a>
<b>Prerequisites</b>	WTW 133 or WTW 135 GS. BCom Extended Programme students who wish to transfer to BCom (Economics):
<b>Contact time</b>	1 tutorial per week, 3 lectures per week, Foundation Course
<b>Language of tuition</b>	Module is presented in English
<b>Department</b>	Mathematics and Applied Mathematics
<b>Period of presentation</b>	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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