



# University of Pretoria Yearbook 2022

## Mathematics 238 (WTW 238)

<b>Qualification</b>	Undergraduate
<b>Faculty</b>	Faculty of Natural and Agricultural Sciences
<b>Module credits</b>	16.00
<b>NQF Level</b>	06
<b>Programmes</b>	BEng (Mechanical Engineering) 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) ENGAGE BEng (Metallurgical Engineering) BEng (Metallurgical Engineering) ENGAGE BEng (Mining Engineering) BEng (Mining Engineering) ENGAGE
<b>Service modules</b>	Faculty of Engineering, Built Environment and Information Technology
<b>Prerequisites</b>	WTW 256 and WTW 258 GS
<b>Contact time</b>	1 tutorial per week, 4 lectures per week
<b>Language of tuition</b>	Module is presented in English
<b>Department</b>	Mathematics and Applied Mathematics
<b>Period of presentation</b>	Semester 2



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## Module content

Linear algebra, eigenvalues and eigenvectors with applications to first and second order systems of differential equations. Sequences and series, convergence tests. Power series with applications to ordinary differential equations with variable coefficients. Fourier series with applications to partial differential equations such as potential, heat and wave equations.

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