



# University of Pretoria Yearbook 2021

## Mathematics 238 (WTW 238)

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| <b>Qualification</b>          | Undergraduate   |
| <b>Faculty</b>                | <a href="#">Faculty of Natural and Agricultural Sciences</a>  |
| <b>Module credits</b>         | 16.00   |
| <b>NQF Level</b>              | 06  |
| <b>Programmes</b>             | <a href="#">BEng Chemical Engineering</a><br><a href="#">BEng Chemical Engineering ENGAGE</a><br><a href="#">BEng Civil Engineering</a><br><a href="#">BEng Civil Engineering ENGAGE</a><br><a href="#">BEng Computer Engineering</a><br><a href="#">BEng Computer Engineering ENGAGE</a><br><a href="#">BEng Electrical Engineering</a><br><a href="#">BEng Electrical Engineering ENGAGE</a><br><a href="#">BEng Electronic Engineering</a><br><a href="#">BEng Electronic Engineering ENGAGE</a><br><a href="#">BEng Industrial Engineering</a><br><a href="#">BEng Industrial Engineering ENGAGE</a><br><a href="#">BEng Mechanical Engineering</a><br><a href="#">BEng Mechanical Engineering ENGAGE</a><br><a href="#">BEng Metallurgical Engineering</a><br><a href="#">BEng Metallurgical Engineering ENGAGE</a><br><a href="#">BEng Mining Engineering</a><br><a href="#">BEng Mining Engineering ENGAGE</a> |
| <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  |



## 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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