



University of Pretoria Yearbook 2018

Mathematical methods 701 (PHY 701)

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| Qualification | Postgraduate |
| Faculty | Faculty of Natural and Agricultural Sciences |
| Module credits | 15.00 |
| Prerequisites | No prerequisites. |
| Contact time | 6 lectures per week |
| Language of tuition | Module is presented in English |
| Department | Physics |
| Period of presentation | Semester 1 |

Module content

The purpose of this course is twofold: (1) To refresh and systematize your knowledge of mathematics (sequences, series, vector calculus, functions of many variables etc.); (2) To give you working knowledge of mathematical methods that were not (or not sufficiently) covered in the undergraduate courses, such as Fourier series and transforms; Ordinary and partial differential equations; Abstract vector spaces; Operators and their eigenvectors; Complex analysis; Calculus of variations; Integral equations; Group theory; Probability and statistics; Numerical methods.

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