



University of Pretoria Yearbook 2019

Numerical analysis 383 (WTW 383)

Qualification	Undergraduate
Faculty	Faculty of Natural and Agricultural Sciences
Module content	Direct methods for the numerical solution of systems of linear equations, pivoting strategies. Iterative methods for solving systems of linear equations and eigenvalue problems. Iterative methods for solving systems of nonlinear equations. Introduction to optimization. Algorithms for the considered numerical methods are derived and implemented in computer programmes. Complexity of computation is investigated. Error estimates and convergence results are proved.
Module credits	18.00
Programmes	BCom BCom Statistics BSc Computer Science BSc Actuarial and Financial Mathematics BSc Applied Mathematics BSc Chemistry BSc Geology BSc Mathematical Statistics BSc Mathematics BSc Meteorology BSc Physics
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Economic and Management Sciences Faculty of Humanities
Prerequisites	WTW 114, WTW 123 WTW 124 and WTW 211
Contact time	2 lectures per week, 1 practical per week
Language of tuition	Afrikaans and English are used in one class
Department	Mathematics and Applied Mathematics
Period of presentation	Semester 2



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