

# University of Pretoria Yearbook 2020

## Numerical analysis 123 (WTW 123)

**Qualification** Undergraduate

**Faculty** Faculty of Natural and Agricultural Sciences

**Module credits** 8.00

**Programmes** BSc Information and Knowledge Systems

BSc Actuarial and Financial Mathematics

BSc Applied Mathematics

BSc Extended programme - Mathematical Sciences

BSc Extended programme - Physical Sciences

BSc Mathematical Statistics

BSc Mathematics

BSc Physics

**Service modules** Faculty of Engineering, Built Environment and Information Technology

**Prerequisites** WTW 114

**Contact time** 1 practical per week, 2 lectures per week

**Language of tuition** Module is presented in English

**Department** Mathematics and Applied Mathematics

**Period of presentation** Semester 2

### Module content

Non-linear equations, numerical integration, initial value problems for differential equations, systems of linear equations. Algorithms for elementary numerical techniques are derived and implemented in computer programmes. Error estimates and convergence results are treated.

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