

# University of Pretoria Yearbook 2016

## Reliability engineering 781 (MIR 781)

**Qualification** Postgraduate

**Faculty** [Faculty of Engineering, Built Environment and Information Technology](#)

**Module credits** 16.00

**Programmes** [BEngHons Mechanical Engineering](#)

[BScHons Applied Science Applied Science: Mechanics](#)

**Prerequisites** No prerequisites.

**Contact time** 21 contact hours per semester

**Language of tuition** English

**Academic organisation** Mechanical and Aeronautical En

**Period of presentation** Semester 1

### Module content

Introduction to probabilistic distributions, computation of system reliability, building reliability models and optimisation of system reliability; Fault Tree Analysis; Failure Modes, Effects and Criticality Analysis (FMECA), Monte Carlo Simulation; probability-based design.

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