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# University of Pretoria Yearbook 2019

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## Optimum design 780 (MOO 780)

**Qualification** Postgraduate

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

**Module credits** 16.00

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

[BScHons Applied Science Mechanics](#)

[BScHons Applied Science Mechanics: Physical Asset Management](#)

**Prerequisites** No prerequisites.

**Contact time** 21 contact hours per semester

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

**Department** Mechanical and Aeronautical Engineering

**Period of presentation** Semester 2

### Module content

Introduction to design and elements of computer aided design. Optimum design problem formulation. Optimum design concepts. Linear programming methods. Integer programming. Numerical methods for unconstrained and constrained optimum design. Model reduction. Interactive and practical design optimisation.

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