

University of Pretoria Yearbook 2018

Optimum design 420 (MOO 420)

Qualification Undergraduate

Faculty Faculty of Engineering, Built Environment and Information Technology

Module credits 16.00

Programmes BEng Mechanical Engineering

BEng Mechanical Engineering ENGAGE

Prerequisites No prerequisites.

Contact time 1 practical per week, 3 lectures per week

Language of tuition Module is presented in English

Department Mechanical and Aeronautical Engineering

Period of presentation Semester 2

Module content

Introduction to elements of computer-aided design. Formulation of the optimum design problem. Concepts used in optimum design. Linear and integer programming methods. Numerical methods used for unconstrained and constrained optimum design. Model reduction techniques. Application to interactive and practical design optimisation.

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