University of Pretoria Yearbook 2017

Operational research 312 (BOZ 312)

Qualification	Undergraduate
Faculty	Faculty of Engineering, Built Environment and Information Technology
Module credits	16.00
Programmes	BEng Industrial Engineering
	BEng Industrial Engineering ENGAGE
Service modules	Faculty of Engineering, Built Environment and Information Technology
Prerequisites	No prerequisites.
Contact time	3 lectures per week, 1 tutorial per week
Language of tuition	Module is presented in English
Academic organisation	Industrial and Systems Eng
Period of presentation	Semester 1

Module content

Introduction to Operations Research, and more specifically the branch of optimisation and its application to industrial problems. In the module the topics of linear and integer linear programming are introduced. The focus is on identifying and scoping appropriate problems, the subsequent formulation of problems, solution algorithms, and post-optimisation sensitivity analysis. Students are exposed to solving problems using optimisation software.