

University of Pretoria Yearbook 2021

Operational research 410 (BON 410)

Qualification Undergraduate

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

Module credits 16.00

NQF Level 08

Programmes [BEng Industrial Engineering](#)

[BEng Industrial Engineering ENGAGE](#)

Prerequisites (BES 220), (BOZ 312)

Contact time 1 tutorial per week, 3 lectures per week

Language of tuition Module is presented in English

Department Industrial and Systems Engineering

Period of presentation Semester 1

Module content

Review of basic probability, Markov chain models, Markov decision models. Queuing systems: M/M/1 queues (both finite and infinite capacity), etc.; deterministic and stochastic inventory models. Competitive games: pure and mixed strategies, optimum strategy, two-person zero-sum games, graphical methods and applications, LP methods for games.

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