

# University of Pretoria Yearbook 2019

## Reactor design 410 (CRO 410)

**Qualification** Undergraduate

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

**Module credits** 16.00

**Programmes** [BEng Chemical Engineering](#)  
[BEng Chemical Engineering Engage](#)

**Prerequisites** CKN 321 GS

**Contact time** 3 tutorials per week, 4 lectures per week

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

**Department** Chemical Engineering

**Period of presentation** Semester 1

### Module content

Heterogeneous catalysis: diffusion in reaction for catalyst pores and different catalyst geometries. Inter and intraparticle heat and mass transfer processes. Reactor design: energy and continuity equation for different types of reactor: stirred tank, pipe, radial flow, slurry and fluidised. Modelling of non-ideal flow in reactors.

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