

# University of Pretoria Yearbook 2016

## Reactor design 410 (CRO 410)

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| <b>Qualification</b>          | Undergraduate   |
| <b>Faculty</b>                | <a href="#">Faculty of Engineering, Built Environment and Information Technology</a>  |
| <b>Module credits</b>         | 16.00   |
| <b>Programmes</b>             | <a href="#">BEng Chemical Engineering</a><br><a href="#">BEng Chemical Engineering Engage</a><br><a href="#">BScHons Applied Science Applied Science: Chemical Technology</a> |
| <b>Prerequisites</b>          | CKN 321 GS  |
| <b>Contact time</b>           | 4 lectures per week, 3 tutorials per week   |
| <b>Language of tuition</b>    | Both Afr and Eng  |
| <b>Academic organisation</b>  | Chemical Engineering  |
| <b>Period of presentation</b> | 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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