

University of Pretoria Yearbook 2022

Machine design 312 (MOW 312)

Qualification Undergraduate

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

Module credits 16.00

NQF Level 07

Programmes [BEng \(Mechanical Engineering\)](#)

[BEng \(Mechanical Engineering\) ENGAGE](#)

Prerequisites MOW 217, (MOW 227)

Contact time 3 lectures per week, 3 tutorials per week

Language of tuition Module is presented in English

Department Mechanical and Aeronautical Engineering

Period of presentation Semester 1

Module content

Within the framework of system engineering the following themes are integrated into the design process: Ergonomics, pressure vessels, structural design, welding and bonding, heat treatment, non-destructive testing, gears, contact stresses and lubrication. Energy systems, safety factors and load factors are considered throughout all themes. Assignments involve open-ended subsystem designs involving pressure vessels and gear systems.

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