



University of Pretoria Yearbook 2023

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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