



University of Pretoria Yearbook 2019

Heat and mass transfer 420 (MHM 420)

Qualification	Undergraduate
Faculty	Faculty of Engineering, Built Environment and Information Technology
Module content	Fundamentals of Thermal Radiation; blackbody radiation, radiative properties, Kirchhoff's law. Radiation Heat Transfer; the view factor, gray surfaces, radiation shields. Boiling and condensation; pool and film boiling, film condensation, dropwise condensation. Heat exchangers; types, analysis, design, and selection. Mass transfer: Fick's Law, mass diffusion, mass convection, simultaneous heat and mass transfer, porous catalysts.
Module credits	16.00
Programmes	BEng Mechanical Engineering BEng Mechanical Engineering Engage
Prerequisites	No prerequisites.
Contact time	3 lectures per week, 1 practical per week
Language of tuition	Module is presented in English
Department	Mechanical and Aeronautical Engineering
Period of presentation	Semester 2

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