



University of Pretoria Yearbook 2022

Metals processing 411 (NPW 411)

Qualification	Undergraduate
Faculty	Faculty of Engineering, Built Environment and Information Technology
Module credits	16.00
NQF Level	08
Programmes	BEng (Metallurgical Engineering) BEng (Metallurgical Engineering) ENGAGE
Prerequisites	(NMC 313), (NMM 320)
Contact time	2 practicals per week, 3 lectures per week
Language of tuition	Module is presented in English
Department	Materials Science and Metallurgical Engineering
Period of presentation	Semester 1

Module content

Introduction to welding and joining processes. Welding of carbon steels, stainless steels, aluminium and aluminium alloys. Development and qualification of welding procedure specifications. Liquid metal processing (casting processes, solidification of castings and mould design). Deformation processing (forging, extrusion and rolling), sheet metal processing and surface processing. The identification and prevention of defects.

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