

University of Pretoria Yearbook 2020

Metals processing and welding 410 (NPW 410)

Qualification Undergraduate

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

Module credits 16.00

Prerequisites (NMC 312) and (NMM 320)

Contact time 2 practicals per week, 4 lectures per week

Language of tuition Module is presented in English

Department Materials Science and Metallurgical Engineering

Period of presentation Semester 1

Module content

Liquid metal processing. Sheet metal processing. Welding processes. Surface processing and hard facing. Processing for fatigue resistance; fatigue of welded structures. Soldering and brazing. Metallurgy of welding and the heat-affected zone. Welding of carbon steels, cast irons and non-ferrous alloys. Metallurgy and welding of stainless steels. Welding codes, specifications, quality assurance.

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