

# University of Pretoria Yearbook 2021

## 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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