

University of Pretoria Yearbook 2019

Fabrication engineering 700 (NFE 700)

Qualification	Postgraduate
Faculty	Faculty of Engineering, Built Environment and Information Technology
Module credits	30.00
Programmes	BEngHons Metallurgical Engineering BEngHons Welding Engineering BScHons Applied Science Metallurgy: Welding Technology BScHons Applied Science Metallurgy
Prerequisites	No prerequisites.
Contact time	48 contact hours per semester
Language of tuition	Module is presented in English
Department	Materials Science and Metallurgical Engineering
Period of presentation	Semester 1 or Semester 2

Module content

This module looks at quality assurance and control in welded fabrication and manufacture, and introduces various standards and codes of manufacture used in the welding industry. Measurement, control and recording in welding, the principle of fitness for purpose, as well as health and safety issues are addressed. Control of residual stresses and distortion during welding, non-destructive testing, repair welding, and the economics of welding are considered. This module also examines plant facilities, welding jigs and fixtures. Special emphasis is placed on the design and implementation of welding procedure specifications, procedure qualification records and quality control plans. A number of case studies are examined.

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