

# University of Pretoria Yearbook 2017

## Welding processes 700 (NWP 700)

<b>Qualification</b>	Postgraduate
<b>Faculty</b>	<a href="#">Faculty of Engineering, Built Environment and Information Technology</a>
<b>Module credits</b>	30.00
<b>Programmes</b>	<a href="#">BEngHons Metallurgical Engineering</a> <a href="#">BEngHons Welding Engineering</a> <a href="#">BScHons Applied Science Metallurgy: Welding Technology</a> <a href="#">BScHons Applied Science Metallurgy</a>
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	48 contact hours per semester
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Materials Science and Metallur
<b>Period of presentation</b>	Year

### Module content

This module examines arc physics, electrotechnics as applied to weld power sources, and power source design. The fundamental principles, applications, consumables and process variables of various arc welding processes, oxy-gas welding techniques, resistance welding processes, power beam processes and solid-state welding techniques are considered. Brazing and soldering, cutting, surfacing and metal spraying techniques are discussed. The module also looks at the welding of plastics, ceramics and composites, and at the mechanisation and use of robotics in the welding and joining industries. Practical training is included in this module.

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