# University of Pretoria Yearbook 2017

# Fabrication engineering 700 (NFE 700)

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| **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 |
| **Academic organisation** | Materials Science and Metallur |
| **Period of presentation** | Year |

**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.