Bachelor of Engineering Technology Honours in Metallurgical Engineering (SAQA: 111406) (NQF 8) **H6MT0Q**

EB10.11.1 Purpose of the qualification

The purpose of the Master of Engineering in Physical Metallurgy is to develop a graduate with advanced abilities in appropriate analytical and research skills relevant for engineering design and synthesis, in order to solve engineering problems of society at large. One of the main objectives of this programme is to develop an advanced capability to conduct research independently and as such promoting a lifelong learning approach. The programme is also aimed at unveiling environmental issues in engineering, together with recognition of the role of other disciplines in engineering. Engineers working in public as well as private sector, and professionals with an interest

in engineering research will find the programme very beneficial.

EB10.11.2 Qualification outcomes

- Identify and analyse problems within the physical metallurgical environment by researching problems creatively and innovatively by applying relevant interdisciplinary knowledge in the chosen field of research.
- Organise and manage him/herself and his/her activities responsibly, effectively and ethically, accept take responsibility within his/her limits of competence, and exercise judgement based on knowledge and expertise, pertaining to the field of research.
- Plan and conduct applicable levels of investigation, research and/or experiments by applying appropriate theories and methodologies and perform appropriate data analysis and interpretation.
- Communicate effectively, both orally and in writing, with specifically research audiences and the community at large, in so far as they are affected by the research, using appropriate data analysis and interpretation.
- Demonstrate, where applicable, environmental sensitivity across a range of environmental contexts in the execution of engineering management research/development activities.

EB10.11.3 Admission requirements and selection criteria.

An NQF level 7 qualification or equivalent in the field of Metallurgical Engineering.

EB10.11.4 Conferment of the degree

One year full-time.

EB10.11.5 Curriculum

CODE	MODULE	CODE	MODULE
First year			
First semester		Second semester	
PRT8X00	Research and Design Project - Metallurgy	PRT8X00	Research and Design Project - Metallurgy
TRM8X01	Research Methodology: Metallurgical	EIM8X02	Environmental Impact of Engineering Activities