Bachelor of Engineering Technology **H6IN0Q**
Honours in Industrial Engineering
(SAQA: 111233) (NQF 8)

EB10.8.1 Purpose of the qualification

The purpose of the Bachelor of Engineering Technology Honours in Industrial Engineering is to

develop students for both industry and research, such that they are able to deepen their expertise

in Industrial Engineering and develop their research capacity in the methodology and techniques of

the discipline.

EB10.8.2 Qualification outcomes

- Demonstrate competence to identify, formulate, analyse and solve complex engineering problems creatively and innovatively.
- Demonstrate competence to apply knowledge of mathematics, natural science and engineering sciences to the conceptualization of engineering models and to solve complex engineering problems.
- Demonstrate competence to perform creative, procedural and non-procedural design and synthesis of components, systems, engineering works, products or processes of a complex nature.
- Demonstrate competence to conduct investigations of complex engineering problems including engagement with the research literature and use of research methods including design of experiments, analysis and interpretation of data and synthesis of information to provide valid conclusions.
- Demonstrate competence to use appropriate techniques, resources, and modern engineering tools, including information technology, prediction and modelling, for the solution of complex engineering problems, with an understanding of the limitations, restrictions, premises, assumptions and constraints.
- Demonstrate competence to communicate effectively, both orally and in writing, with engineering audiences and the community at large.
- Demonstrate knowledge and understanding of the impact of engineering activities society, economy, industrial and physical environment.
- Demonstrate knowledge and understanding of engineering management principles.
- Demonstrate competence to engage in independent and life-long learning through well-developed learning skills.
- Comprehend and apply ethical principles and commit to professional ethics, responsibilities and norms of engineering practice.

EB10.8.3 Admission requirements and selection criteria

An NQF level 7 qualification or equivalent in Industrial Engineering or related field.

EB10.8.4 Conferment of the degree

One year full-time.

10.8.5 Curriculum

CODE	MODULE	CODE	MODULE
First semester		Second semester	
EMC8X01	Engineering Mathematics and Computing	EGS8X02	Engineering and Society
PHE8X80	Energy Physics	ENA8X02	Enterprise Architecture 4
RMI8X01	Research Methodology	MPC8X02	Manufacturing Planning and Control Systems 4
SCP8X01	Supply Chain Processes 4	IRP8X00	Research & Design Project: Industrial Engineering
IRP8X00	Research & Design Project: Industrial Engineering		