



Cape Peninsula University of Technology

creating futures

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Rationale for the qualification

As engineers progress in their respective engineering careers, the skills required from them by industry becomes more complex

- 1) Hiring and supervising staff
- 2) Managing budgets
- 3) Leading projects
- 4) Aware of global practices, technology, internet of things and even with working with big data

Increasing seniority of the roles they fulfil in organizations necessitates skills that are classically regarded as more management skills than technical skills (Kettering University 2020).

Designed specifically for part-time students, although we will have a full-time cohort



Situational analysis

Situational and contextual analysis demonstrated a growing need for MEng in Engineering Management and there is no equivalent qualification currently being offered in the Western Cape.

TUT and UJ have course work MEng Engineering Management

University of Stellenbosch research based qualification

Thus, in the design of this proposed qualification care is taken to ensure mobility and articulation to a higher level at another university where possible.

Flexible learning paths online and mobility

Targeting women



Structure of the programme

For part-time students over a period of two year

TIM690S	TECHNOLOGY AND INNOVATION MANAGEMENT	15 SAQA credits	Year 1 Sem 1
EMT690S	ENTERPRISE MANAGEMENT	15 SAQA credits	Year 1 Sem 1
BFE690S	BUSINESS FOR ENGINEERS	15 SAQA credits	Year 2 Sem 1
IND690S	INDUSTRY X.0	15 SAQA credits	Year 1 Sem 2
RMT690S	RESEARCH METHODS	15 SAQA credits	Year 1 Sem 2
RPJ690S	RESEARCH PROJECT	90 SAQA credits	Year 2 – Year course
LPE690S	LARGE PROJECT ENGINEERING	15 SAQA credits	Year 2 – Sem 2 (elective)
SCT690S	SUPPLY CHAIN MANAGEMENT	15 SAQA credits	Year 2 – Sem 2 (elective)



First year

Technology and Innovation Management students are given an understanding on why it is important for organisations to innovate, how they might compete in terms of innovation, and the role that innovation plays in shaping the strategic decisions of companies

Enterprise Management introduces the key principles, key concepts and tools of strategy formulation for organisational (enterprise) competitiveness

Industry X.0 is a multidisciplinary subject combining both academic knowledge and technical skill which are essential in innovation – AI, Cyber-physical systems and using big data

Research Methods

Second year

Business for Engineers is aimed at developing an understanding of how businesses are managed and how to analyse and model the financials of the enterprise

Electives

Large project engineering developing the knowledge and skills of students to comprehensively understand the world of large project management and to appreciate the many complexities that are associated with this process

Supply Chain Management examines how the various segments of a business integrate to create a value chain in engineering business concerns

Research project

Development of programme

The degree was conceptualized in the department in 2016 however due to internal changes to management there was a delay in the development of it. Stakeholders were consulted in 2016, however development lost momentum in 2017 to 2019. At the end of 2019, restarted the process with vigour

- Dec 2019 – March 2020 - Completed the situational and contextual analysis
- March 2020 – May 2020 – Completed the paper work and submitted internal approval
- June 2020 - DHET approval
- Nov 2020 – Senate approved admission requirements
- February 2021 - CHE approval
- April 2021 – SAQA ID



Current status

Currently offered part-time

Adjusted Level 3 Lockdown

Online classes for 9 registered students

Research Methods – Dr Swartz
Industry X.0 – Prof Bosman



Mutual Recognition

Approximated similarity	CPUT	TUT
80-90% similarity	Supply Chain Management (SCT690S)	Supply Chain Management (SPP119M)
70% similarity	Large Project Engineering (LPE690S)	Engineering Project Management (EPJ119M)
80-90% similarity	Business for Engineers (BFE690S)	Engineering business dynamics (EBU118M)
90-100% similarity	Research Methodology (RMT690S)	Research Methodology (RMD118M)
100% similarity - mini dissertation research project	Research Project (RPJ690S)	Research report: Engineering Management (RRT109M)

