BACCALAUREUS TECHNOLOGIAE: QUALITY
Qualification code: BTQU02 - NQF Level 7

Campus where offered: Arcadia Campus

Important notification to new applicants:
Students who intend to enrol for this qualification should take note that no new applications will be accepted as from 2020. Potential students are advised to consult the University's website for possible new qualifications which are aligned with the newly-implemented Higher Education Qualification Sub-Framework.

REMARKS

a. *Admission requirement(s) and selection criteria:*
Any relevant NQF Level 6 bachelor's degree or diploma from a South African university.

Holders of any other equivalent South African or international qualifications may also be considered, but will have to apply about six months in advance for the recognition of such qualifications. Candidates will be required to submit an evaluation of their qualifications by the South African Qualifications Authority (SAQA) with their application forms for admission. The Faculty reserves the right to assess these qualifications and the applicant's suitability/ competence for admission to the programme. Proof of English proficiency may be required. Depending on the nature of such an equivalent qualification, completion of certain additional subjects may be required.

b. *Selection criteria:*
Selection is based on an assessment by a departmental selection panel.

c. *Recommended subject(s):*
Computer Skills I (with demonstrated competence in Excel, Word and PowerPoint) and any of the following subjects: Mathematics I, Qualitative Techniques I, Quantitative Techniques I and Statistics I.

d. *Minimum duration:*
One year.

e. *Presentation:*
Block-mode classes offered over a period of two years.

f. *Intake for the qualification:*
January only.

g. *Exclusion and readmission:*
See Chapter 2 of Students' Rules and Regulations.

h. *Recognition of Prior Learning (RPL), equivalence and status:*
See Chapter 30 of Students' Rules and Regulations.

i. *Structure:*
This qualification consists of six subjects in which lectures are attended plus a research project, Project IV (seventh subject). Before the project is accepted for assessment, the student must submit an article, based on the research and approved by the supervisor, to be considered for publication in a journal. A draft of the article must be submitted with Project IV.

j. *Subject credits:*
Subject credits are shown in brackets after each subject.

CURRICULUM

FIRST AND SECOND YEAR

CODE	SUBJECT	CREDIT	PREREQUISITE SUBJECT(S)
PJT400T	Project IV	(0,250)	
PJT400R	Project IV (re-registration)	(0,000)	
FIRST SEMESTER			
CQI401T	Continual Quality Improvement IV	(0,125)	
QMS301T	Quality Management Systems III	(0,125)	
SQT301T	Statistical Quality Techniques III	(0,125)	
SECOND SEMESTER			
QAQ401T	Quality Auditing Techniques IV	(0,125)	Quality Management Systems III
QPI401T	Quality Planning and Implementation IV	(0,125)	
QTS401T	Quality Techniques IV	(0,125)	Statistical Quality Techniques III
TOTAL CREDITS FOR THE QUALIFICATION:		**1,000**	

SUBJECT/MODULE INFORMATION (OVERVIEW OF SYLLABUS)

The syllabus content is subject to change to accommodate industry changes. Please note that a more detailed syllabus is available at the Department or in the study guide that is applicable to a particular subject/module. On 01 August 2017, the syllabus content was defined as follows:

C

CONTINUAL QUALITY IMPROVEMENT IV (CQI401T) **1 X 3-HOUR PAPER**

(Subject custodian: Department of Mathematics and Statistics)

Introduction to TQM. ISO 9000 and TQM. Business philosophies. Quality awards and Excellence Models, ISO 9004: 2000. Quality function Deployment (QFD) and Quality Policy Deployment (QPD). Business Process Re-engineering (BPR). Quality information systems and quality cost calculations (ISO10014:2005). Surveying customer satisfaction (ISO 10001, 10002, 10003:2005). Teamwork. Motivation. (Total tuition time: not available)

P

PROJECT IV (PJT400T/R) **PROJECT ASSESSMENT**

(Subject custodian: Department of Mathematics and Statistics)

Research methodology. Project management principles (ISO 10006:2003). Project discussion sessions. Colloquiums. Report writing. Submission of a 240-hour project. (Total tuition time: not available)

Q

QUALITY AUDITING TECHNIQUES IV (QAQ401T) **1 X 3-HOUR PAPER**

(Subject custodian: Department of Mathematics and Statistics)

ISO 19011:2002. Product, process and system audits. Basic configuration management (ISO 10007). IAF-APG guidance documents. Sydney Model. IATF process approach to system audits. (Total tuition time: not available)

QUALITY MANAGEMENT SYSTEMS III (QMS301T) **1 X 3-HOUR PAPER**

(Subject custodian: Department of Mathematics and Statistics)

General management techniques. ISO 9000-based QMS. The development of Quality Standards. Overview of the ISO 9000 family. Quality terminology. Guide for Selection and Use, QM Principles. ISO 9001:2000 requirements. Preparing the QMS. Process management. Quality plans (ISO 10005:2005). Documentation. Internal quality auditing. QMS Certification. EMS (ISO 14001) and OH&S (OHSAS 18001), ISO 17025 for laboratories. (Total tuition time: not available)

QUALITY PLANNING AND IMPLEMENTATION IV (QPI401T) **1 X 3-HOUR PAPER**

(Subject custodian: Department of Mathematics and Statistics)

The American quality experts: Juran, Deming, Crosby and other quality experts. Service Quality. Change management. Integrated ISO management systems. Risk management. (Total tuition time: not available)

QUALITY TECHNIQUES IV (QTS401T) **1 X 3-HOUR PAPER**

(Subject custodian: Department of Mathematics and Statistics)

Six Sigma process. Statistical process control (SPC) techniques. Process capability. SPC for measurement and R & R studies (MSA). FMEAs. Reliability theory, ISO 10017 (Total tuition time: not available)

S

STATISTICAL QUALITY TECHNIQUES III (SQT301T) **PRACTICAL EXAMINATION**

(Subject custodian: Department of Mathematics and Statistics)

Fundamentals of statistics. Analytical statistics, including descriptive statistics, probability theory, sampling techniques, confidence intervals, hypothesis testing, regression analyses, non-parametric tests. Design of experiments. Use of statistical software. ISO 10017. (Total tuition time: not available)