

## BACCALAUREUS TECHNOLOGIAE: QUALITY

Qualification code: BTQU02 - NQF Level 7

Campus where offered: Arcadia Campus (block-mode classes)  
Last year of new intake: 2019  
Teach-out (phase-out) date: 31 December 2022

Students registered for this qualification should complete their studies according to the teach-out date prescribed for the qualification, subject to the stipulations of Regulation 3.1.11 and 3.1.13 in the Students' Rules and Regulations.

Information on phased-out programmes can be obtained from the TUT website, [www.tut.ac.za](http://www.tut.ac.za).

### CURRICULUM

Consult the 2019 Faculty Prospectus for the full contents of the qualification.

### ATTENDANCE

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 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. At time of publication, 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)

