

BACCALAUREUS TECHNOLOGIAE: INFORMATION TECHNOLOGY: INFORMATION MANAGEMENT

Qualification code: BTIX05 - NQF Level 7

Campus where offered: Soshanguve South Campus (day classes offered during the week and on Saturdays)
 Last year of new intake: 2019
 Teach-out (phase-out) date: 30 June 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.

Key to asterisks:

* Information does not correspond to information in Report 151.
 (Deviations approved by the Senate in November 2008, May 2011 and March 2013.)

CURRICULUM

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

FIRST OR SECOND SEMESTER

| CODE | SUBJECT | CREDIT | PREREQUISITE SUBJECT(S) |
|---------|---|---------|--|
| ABL401T | Advanced Business Analysis IV* | (0,100) | Business Analysis IV |
| ADJ401T | Advanced Information and Technology Management IV | (0,100) | Information and Technology Management IV |
| BUA401T | Business Analysis IV* | (0,100) | |
| ITA401T | Information and Technology Management IV | (0,100) | |
| PAJ411D | Principles of Research IV* | (0,100) | |
| PJG401C | Project Management IV | (0,100) | |
| PJT411C | Project IV | (0,200) | Principles of Research IV |
| PJT412R | Project IV (re-registration) | (0,000) | |
| STV401B | Strategic Information Systems IV | (0,100) | |

plus one of the following subjects. All subjects are offered as determined by the Head of the Department:

| | | |
|---------|---|---------|
| BAB401B | Business Fundamentals IV | (0,100) |
| DEG401T | Data Engineering IV* (first-semester subject) | (0,100) |

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:

A

ADVANCED BUSINESS ANALYSIS IV (ABL401T) 1 X 3-HOUR PAPER *(Subject custodian: Department of Informatics)*

Students have to demonstrate their advanced knowledge and understanding of the ISD and business processes development methods using the BABOK by: Identifying business opportunities according to problem specifications; analysing business requirements to solve the problem; developing system analysis and design solutions using appropriate methods, techniques and tools sets; and defending the skills needed to plan, control, and manage the project. (Total tuition time: ± 54 hours)

ADVANCED INFORMATION AND TECHNOLOGY MANAGEMENT IV (ADJ401T) 1 X 3-HOUR PAPER *(Subject custodian: Department of Informatics)*

Students have to demonstrate their knowledge and understanding of Architecture by: determining the IT business processes within an organisation; differentiating the outsourcing relationships within the IT industry; constructing the various relationships between architecture stages and outsourcing relationships; summarising the Top Ten Leadership Principles of an Enterprise Architecture Strategy; and differentiating the approaches to profitable growth through acquisitions. (Total tuition time: ± 54 hours)

B

BUSINESS ANALYSIS IV (BUA401T) 1 X 3-HOUR PAPER *(Subject custodian: Department of Informatics)*

Business analysis is critical in identifying the business needs of end users and other stakeholders to determine the appropriate solution to a business problem. Focus is primarily on business analysis, and discusses how to obtain success in business analysis. Six business analysis knowledge areas are discussed in detail. On successful completion of this subject, the student will be able to: specify and model requirements for an IT business solution, investigate business problem or opportunity within an organisation, analyse and document solution requirements for an IT organisation and support project manager throughout solution development, implementation and testing to ensure that requirements are met. (Total tuition time: ± 54 hours)

BUSINESS FUNDAMENTALS IV (BAB401T) 1 X 3-HOUR PAPER *(Subject custodian: Department of Informatics)*

Business analysis is critical in identifying the business needs of end users and other stakeholders to determine the appropriate solution to a business problem. Focus is primarily on business analysis, and discusses how to obtain success in business analysis. Six business analysis knowledge areas are discussed in detail. On successful completion of this subject, the student will be able to: specify and model requirements for an IT business solution, investigate business problem or opportunity within an organisation, analyse and document solution requirements for an IT organisation and support project manager throughout solution development, implementation and testing to ensure that requirements are met. (Total tuition time: ± 54 hours)

D

DATA ENGINEERING IV (DEG401T) 1 X 3-HOUR PAPER *(Subject custodian: Department of Computer Science)*

The aim of this subject is to address the issues of data representation for data mining. Objectives: On completion of this subject, students should be able to prepare and process data for meaningful interpretations. Key topics: data engineering models, data mining tool, normalisations and redistributing variables, introduction to Neural network. (Total tuition time: ± 40 hours)



I**INFORMATION AND TECHNOLOGY MANAGEMENT IV (ITA401T)****1 X 3-HOUR PAPER****(Subject custodian: Department of Informatics)**

This subject provides concepts and frameworks for understanding the potential impact of Information Technology (IT) on business strategy and performance. The subject focuses on the implications of increased digitisation for defining business strategies and operating models, and explores the roles of both general managers and IT executives in using IT to achieve operational excellence and business agility. On successful completion of this subject, the student will be able to develop an IT Strategy for a digital enterprise; evaluate how IT will shape future businesses and the contribution of enterprise architecture; evaluate the risk and benefits of digitised processes and compare strategically whether to perform those processes internally or externally; assess the impact of globalisation; motivate why some firms are better able to convert their IT investments into business value; and implement steps to ensure effective IT decision making. (Total tuition time: ± 54 hours)

P**PRINCIPLES OF RESEARCH IV (PAJ411D)****CONTINUOUS ASSESSMENT****(Subject custodian: Department of Informatics)**

This subject prepares students to obtain the necessary skills in doing proper research to deliver a proper researched report. The subject also looks at the basics of paradigms, methodologies, and techniques of research in the behavioural sciences, and their application in information technology. On completion of the subject, students will be able to apply the basic paradigms, methodologies and techniques; apply different methodologies in different scenarios; recommend which data collection technique is necessary; apply correct research methods in the ICT environment, and apply the appropriate tools for collecting data in the ICT environment. Project topics and research questions in line with the Department niche area. (Total tuition time: ± 54 hours)

PROJECT IV (PJT411C, PJT412R)**CONTINUOUS ASSESSMENT****(Subject custodian: Department of Informatics)**

This subject is an IT project that includes IT research and writing a research report. On completion of the subject, students will be able to apply the research and presentation skills obtained in Principles of Research, apply the correct Harvard reference method, demonstrate writing skills, and demonstrate research skills according to the project topics and research questions in line with the Department niche area. (Total tuition time: ± 26 hours)

PROJECT MANAGEMENT IV (PJG401C)**1 X 3-HOUR PAPER****(Subject custodian: Department of Informatics)**

This subject aims to enhance students' knowledge of Project Management. The student who successfully completes this subject must be able to apply project management skills to any IT related project. On completion of the subject, students will be able to define, facilitate, document, and manage the project requirements for information technology project, construct the relevant template based on industry-accepted standards, apply the appropriate techniques that are geared to significantly improve requirements, collection and documentation; and explore the roles of various players (project leaders, business analysts, client advocates, and customers) in determining the success of the requirements definition for IT projects. (Total tuition time: ± 54 hours)

S**STRATEGIC INFORMATION SYSTEMS IV (STV401B)****1 X 3-HOUR PAPER****(Subject custodian: Department of Informatics)**

This subject deals with knowledge engineering and technologies underpinning knowledge systems, such as decision support systems, group support systems, expert systems, data warehousing, data mining, document management and information searches. It also looks at the concepts, tools and technologies used to support decision making, with emphasis on DSS, BI, Data mining, Data warehousing, use of Web technologies, and Knowledge management implementation, potential and challenges. On completion of this subject, students will be able to examine the decision making process; propose the various technologies that can be implemented; and assess the potential and challenges of DSS, BI and knowledge technologies within an organisation. (Total tuition time: ± 54 hours)

