

BACCALAUREUS TECHNOLOGIAE: CLINICAL TECHNOLOGY

Qualification code: BTCT01 - 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):*
A National Diploma: Clinical Technology or an NQF Level 6 bachelor's degree in Clinical Technology from a South African university.
- Holders of any other equivalent South African or international qualification may also be considered, see Chapter 1 of Students' Rules and Regulations.
- b. *Selection criteria:*
Selection is based on an assessment by a departmental selection panel.
- c. *Minimum duration:*
One year.
- d. *Presentation:*
Block-mode classes offered over a period of two years on specific contact days.
- e. *Intake for the qualification:*
January only.
- f. *Exclusion and readmission:*
See Chapter 2 of Students' Rules and Regulations.
- g. *Recognition of Prior Learning (RPL), equivalence and status:*
See Chapter 30 of Students' Rules and Regulations.
- h. *Practicals:*
100% attendance is compulsory for all practical classes. Students must pass the practical component of a subject to obtain admission to sit for the examination.
- i. *Textbooks:*
Textbooks and other educational material will be required.
- j. *Other requirements:*
Immunisation against Hepatitis B is compulsory.
- k. *Registration as a student clinical technologist:*
Registration with the Health Professions Council of South Africa (HPCSA) as a qualified clinical technologist (under supervision) is compulsory.
- l. *Professional registration as a clinical technologist:*
- A candidate may register as a qualified clinical technologist (independent practice) on the successful completion of the required subjects of the Baccalaureus Technologiae.
 - International students will be allowed to register at the HPCSA only as student technologists for the duration of the relevant qualification. They will however, not be able to register with the HPCSA as clinical technologists.
 - In order to achieve clinical competency in this qualification, all students are required to complete a minimum of 880 clinical hours under direct supervision of a qualified clinical technologist (private practice/independent practice) in their category of specialisation.



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

CURRICULUM

ATTENDANCE

CODE	SUBJECT	CREDIT
One of the following subjects:		
CRD400T	Cardiology IV	(0,500)
CRD400R	Cardiology IV (re-registration)	(0,000)
CTC400T	Critical Care IV	(0,500)
CTC400R	Critical Care IV (re-registration)	(0,000)
NEP400T	Nephrology IV	(0,500)
NEP400R	Nephrology IV (re-registration)	(0,000)
NPH400T	Neurophysiology IV	(0,500)
NPH400R	Neurophysiology IV (re-registration)	(0,000)
PRF400T	Perfusion IV	(0,500)
PRF400R	Perfusion IV (re-registration)	(0,000)
PUL400T	Pulmonology IV	(0,500)
PUL400R	Pulmonology IV (re-registration)	(0,000)
RBV400T	Reproductive Biology IV	(0,500)
RBV400R	Reproductive Biology IV (re-registration)	(0,000)

FIRST SEMESTER

RMN201D	Research Methodology: Natural Sciences (compulsory subject)	(0,250)
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SECOND SEMESTER

PMR101T	Principles of Management I (compulsory subject)	(0,250)
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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. On 01 August 2018, the syllabus content was defined as follows:

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<p>CARDIOLOGY IV (CRD400T/R) <i>(Subject custodian: Department of Biomedical Sciences)</i> Specialised echocardiography. Mechanisms of arrhythmogenesis. Advanced electro-physiological studies. Interventional management of arrhythmias. Cardiac pharmacology. (Total tuition time: not available)</p>	PROJECT ASSESSMENT
<p>CRITICAL CARE IV (CTC400T/R) <i>(Subject custodian: Department of Biomedical Sciences)</i> Pathophysiology. Treatment regimes. Nutrition. (Total tuition time: not available)</p>	PROJECT ASSESSMENT



N**NEPHROLOGY IV (NEP400T/R)****PROJECT ASSESSMENT***(Subject custodian: Department of Biomedical Sciences)*

Anatomy of the renal system. Functions of the kidney, excretory function of the kidney. Renal processing of individual substances, water balance, micturition, renal function tests and abnormalities. (Total tuition time: not available)

NEUROPHYSIOLOGY IV (NPH400T/R)**PROJECT ASSESSMENT***(Subject custodian: Department of Biomedical Sciences)*

Electro-encephalogram, polysomnography, evoked potential recordings, electromyography. Neurography. (Total tuition time: not available)

P**PERFUSION IV (PRF400T/R)****PROJECT ASSESSMENT***(Subject custodian: Department of Biomedical Sciences)*

Physiological calculations of flow rates, physiological fluids. Effects of temperature changes, monitoring: pre-, intra- and post-cardiac drugs. Cardioplegia, perfusion of different organs, tissue changes, blood physiology, pathology of cardiopulmonary bypass on different organs, flow dynamics, blood conservation, different perfusions, paediatric perfusion. (Total tuition time: not available)

PRINCIPLES OF MANAGEMENT I (PMR101T)**1 X 3-HOUR PAPER***(Subject custodian: Department of Management and Entrepreneurship)*

Managers and management, planning, organisation, leading, control, decision-making, motivation, leadership and supervision, communication, coordination, human resource management, financial management, entrepreneurship, marketing management, legal aspects of contracts, business plan. (Total tuition time: not available)

PULMONOLOGY IV (PUL400T/R)**PROJECT ASSESSMENT***(Subject custodian: Department of Biomedical Sciences)*

Exercise studies. Sleep studies. Advanced body plethysmographic studies. Control of ventilation studies. Industrial respiratory diseases. Allergies. Clinical trials and procedures. Bronchoscopic procedures. Nebulisation. Pulmonary-related procedures. Ventilation/perfusion studies with radio-active materials. (Total tuition time: not available)

R**REPRODUCTIVE BIOLOGY IV (RBY400T/R)****PROJECT ASSESSMENT***(Subject custodian: Department of Biomedical Sciences)*

Micro-manipulation. Cell culturing. Bioassays. Sperm function tests. Computer-assisted sperm motility. Fluorescence microscopy. Electron microscopy. Biochemical separation techniques, system quality controls. (Total tuition time: not available)

RESEARCH METHODOLOGY: NATURAL SCIENCES (RMN201D)**1 X 3-HOUR PAPER***(Subject custodians: Departments of Biomedical Sciences)*

Purpose, nature and meaning of research, basic structure of a research proposal, identify a research problem, literature review, research aims, objectives and hypotheses, research design types, sampling procedures, reliability and validity. Research budget and research funding. Types of quantitative data, basic principles of non-parametric tests, introduction to descriptive statistics. Probability (p-values) and hypothesis testing, introduction to inferential statistics (student's t-test, ANOVA and correlations). Introduction to epidemiological data. Interpretation of graphs and tables. Introduction to qualitative research (sampling, data-collection procedures, interviews, data analysis, literature control, trustworthiness, research approaches). Basic principles of research ethics. Dissemination of research findings. (Total tuition time: One full block week: ± 40 hours)

