

BACCALAUREUS TECHNOLOGIAE: VETERINARY TECHNOLOGY

Qualification code: BTVE96 - NQF Level 7

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

CURRICULUM

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

FIRST AND SECOND YEAR

Subjects are offered in semesters, as determined by the Head of the Department.

CODE	SUBJECT	CREDIT	PREREQUISITE SUBJECT(S)
EPS101T	Entrepreneurial Skills	(0,060)	
PJA401T	Project: Veterinary Technology IV	(0,280)	Research Methodology: Natural Sciences
PJA401R	Project: Veterinary Technology IV (re-registration)	(0,000)	
RMN201B	Research Methodology: Natural Sciences	(0,100)	

plus two of the following subjects:

MLB400T	Molecular Biology IV (year subject)	(0,280)
PRY401T	Parasitology IV	(0,280)
PTX401T	Pharmacology and Toxicology IV	(0,280)
RPT401T	Reproduction Technology IV	(0,280)
VIR401T	Virology IV	(0,280)
VTB401T	Veterinary Bacteriology IV	(0,280)

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:

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ENTREPRENEURIAL SKILLS (EPS101T)

1 X 3-HOUR PAPER

(Subject custodian: Department of Management and Entrepreneurship)

Entrepreneurship, core business strategies, marketing strategies, operational strategies, financial planning and management, human resource planning. (Total tuition time: ± 60 hours)



M**MOLECULAR BIOLOGY IV (MLB400T)****1 X 3-HOUR PAPER****(Subject custodian: Department of Biomedical Sciences)**

Structure, composition and characteristics of macromolecules. Transcription and translation. Recombinant DNA technology and prokaryotic and eukaryotic genetic manipulation. Use of nucleic acid probes and primers. Mutation analysis. Human mitochondrial genome. Practical techniques. Project. (Total tuition time: ± 90 hours)

P**PARASITOLOGY IV (PRY401T)****1 X 3-HOUR PAPER****(Subject custodian: Department of Biomedical Sciences)**

The ecological and epidemiological principles that have an influence on the occurrence and distribution of parasites in Southern Africa. The population dynamics of parasites. Principles of integrated pest control. The prevention of pollution and biological resistance against chemical pesticides. Project. (Total tuition time: ± 90 hours)

PHARMACOLOGY AND TOXICOLOGY IV (PTX401T)**1 X 3-HOUR PAPER****(Subject custodian: Department of Biomedical Sciences)**

Administration routes. Basic principles of toxicology. Sampling, handling and analytical techniques. (Total tuition time: ± 90 hours)

PROJECT: VETERINARY TECHNOLOGY IV (PJA401T/R)**PROJECT ASSESSMENT****(Subject custodian: Department of Biomedical Sciences)**

Project. Students must submit a protocol and a final report. (Total tuition time: six months)

R**REPRODUCTION TECHNOLOGY IV (RPT401T)****1 X 3-HOUR PAPER****(Subject custodian: Department of Biomedical Sciences)**

Practical and theoretical knowledge of the anatomy and physiology of the reproduction systems of animals. The application of semen technology, including semen preservation, semen evaluation and artificial insemination. Embryo technology involves all aspects of fertilisation, embryo development and implantation, maintenance of pregnancy and assistance with partus. (Total tuition time: ± 90 hours)

RESEARCH METHODOLOGY: NATURAL SCIENCES (RMN201B)**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 and 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. Basic principles of research ethics. Dissemination of research findings. (Total tuition time: One full block week: ± 40 hours)

V**VETERINARY BACTERIOLOGY IV (VTB401T)****CONTINUOUS ASSESSMENT****(Subject custodian: Department of Biomedical Sciences)**

The more important pathogenic bacteria, mycoplasmas and fungi of veterinary importance that are covered with respect to isolation, identification and symptoms. Advanced techniques. Project. (Total tuition time: ± 90 hours)

VIROLOGY IV (VIR401T)**CONTINUOUS ASSESSMENT****(Subject custodian: Department of Biomedical Sciences)**

Bacteriophages. Biochemistry of viruses. Replication. Interaction between virus and host. Control of viral infections. Tumour viruses. Insect viruses. Vaccine production. Project. (Total tuition time: ± 90 hours)

