

# BACCALAUREUS TECHNOLOGIAE: NATURE CONSERVATION

Qualification code: BTNA00 - NQF Level 7

Campus where offered: Pretoria 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).

Key to asterisks:

\* Information does not correspond to information in Report 151.  
(Deviation approved by the Senate in May 2012.)

## CURRICULUM

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

## ATTENDANCE

CODE	SUBJECT	CREDIT
CVM100T	Conservation Management I	(0,100)
RMG40PT	Resource Management IVA	(0,125)*
RMG40QT	Resource Management IVB	(0,125)*
WPS40PT	Plant Studies IVA	(0,125)*
WPS40QT	Plant Studies IVB	(0,125)*
<b>plus one of the following subjects:</b>		
RMD10PH	Research Methodology A	(0,100)*
RMD10QH	Research Methodology B	(0,100)*
<b>plus two of the following subjects:</b>		
EED100T	Environmental Education I	(0,100)
FMN120T	Financial Management I	(0,100)
FWM400T	Fresh Water Management IV	(0,100)
PMR100T	Principles of Management I	(0,100)
TOTAL CREDITS FOR THE QUALIFICATION:		<b>1,000</b>

## 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

#### CONSERVATION MANAGEMENT I (CVM100T)

1 X 3-HOUR PAPER

*(Subject custodian: Department of Nature Conservation)*

This subject is broadly based on the emerging discipline of conservation biology. The goal of conservation biology is to gain an understanding of natural ecological systems in order to maintain ecological diversity in the face of increasing human population pressure. The subject attempts to apply theoretical ecological and genetic models to real-life situations and to address the loss of biodiversity through a fusion of theory, basic and applied research and public education. It investigates human impact and develops practical approaches to prevent the extinction of species. (Total tuition time: ± 40 hours)



**E****ENVIRONMENTAL EDUCATION I (EED100T)****1 X 3-HOUR PAPER****(Subject custodian: Department of Nature Conservation)**

This is a study of the philosophy of environmental education, community development and human behaviour as a pathway to sustainability. The nature, objectives, goals and sub-goals of environmental education will be discussed and implemented, practically. Environmental issues will be conceptualised and presented in terms of the nature, causes, effects, and how they can be linked to the school curriculum. Methods will be discussed as to the supporting and implementation of the subject, Environmental Education, in the school curriculum. Evaluation/assessment of the National Curriculum Statement, learning areas (subject curriculum) and learning outcomes pertaining to Environmental Education Awareness programme (EEAP). Students will be required to evaluate the schools' learners' understanding and skills in relation to environmental subject matter. The student will be required to develop environmental education resource material and to assess it according to accepted standards (OBE). Students will be required to assess an environmental education awareness programme and present it to a target group. Here various techniques, knowledge, and skills must be used to assess environmental behaviour. (Total tuition time: ± 75 hours)

**F****FINANCIAL MANAGEMENT I (FMN120T)****1 X 3-HOUR PAPER****(Subject custodian: Department of Nature Conservation)**

The objective is to provide the student with the necessary knowledge and techniques to make effective financial decisions. The subject covers aspects of micro- and macro-economics, financial reports and statements, the analysis and interpretation of financial results, production economic principles and cost terms, budgets and risk and uncertainty. (Total tuition time: ± 40 hours)

**FRESH WATER MANAGEMENT IV (FWM400T)****1 X 3-HOUR PAPER****(Subject custodian: Department of Nature Conservation)**

This subject is primarily concerned with the management of inland (freshwater) water resources and habitats for conservation, and their sustainable utilisation. A broad theoretical background is given on the ecology, nature, occurrence, conservation status and associated problems of freshwater ecosystems in Southern Africa. This is followed by measures to effectively manage such ecosystems (monitoring, breeding, freshwater organisms, legislation, etc.). The emphasis throughout is on insight and the practical application of knowledge. (Total tuition time: ± 40 hours)

**P****PLANT STUDIES IVA (WPS40PT)****1 X 3-HOUR PAPER****(Subject custodian: Department of Nature Conservation)**

An in-depth study of vegetation or plant science, its principles, aims and applications. This includes the nature of quantitative plant ecology and vegetation science, the description of plant communities, the nature and characteristics of plant data, basic vegetation-related statistics, analysis of data, ordination methods, phyto-sociology and numerical classification. The emphasis is placed on the application of vegetation research and monitoring to ensure better management of plant resources. (Total tuition time: ± 40 hours)

**PLANT STUDIES IVB (WPS40QT)****1 X 3-HOUR PAPER****(Subject custodian: Department of Nature Conservation)**

This subject deals with advanced theory and application regarding the management of veld and vegetation in nature reserves (for game). An advanced theoretical base is given on aspects such as veld management approaches, veld monitoring, veld evaluation, carrying capacity, fire management, bush control, restoration ecology, and management of alien invasive plants. The emphasis is on practical applications and insight. (Total tuition time: ± 40 hours)

**PRINCIPLES OF MANAGEMENT I (PMR100T)****1 X 3-HOUR PAPER****(Subject custodian: Department of Nature Conservation)**

A study of the principles of management as a functional part of business management. The theory of management is explained through the process approach. Aspects that are emphasised include different management Levels, basic management functions, additional functions, the management environment, environmental reconnaissance (scenarios) and planning. Strategic planning and strategy implementation, decision-making, coordination, organisation (principles and systems), provision of human resources (performance evaluation), and activating, controlling and managing information systems. (Total tuition time: ± 40 hours)



**RESEARCH METHODOLOGY A (RMD10PH)****1 X 3-HOUR PAPER****(Subject custodian: Department of Nature Conservation)**

This subject provides background knowledge of research methodology regarding the planning, execution and interpretation of results and scientific reporting. It incorporates the following aspects: philosophies, skills, criteria, types of research and processes, as well as the writing of reports and presentation of seminars, construction of questionnaires, etc. Introductory statistical analysis forms an integral part of this presentation. (Total tuition time: ± 40 hours)

**RESEARCH METHODOLOGY B (RMD10QH)****PROJECT ASSESSMENT****(Subject custodian: Department of Nature Conservation)**

Drawing up a detailed research protocol (research proposal) and completing a pilot study for an identified research project under the guidance of a mentor. The results of the pilot study will be presented during the last contact week of the study year. A written report, as well as an oral presentation is required. (Total tuition time: ± 40 hours)

**RESOURCE MANAGEMENT IVA (RMG40PT)****1 X 3-HOUR PAPER****(Subject custodian: Department of Nature Conservation)**

This subject deals with advanced aspects of game and wildlife management. Different approaches and objectives in wildlife management are covered. The following aspects are covered at an advanced level: Anatomy and physiology of the digestive system, water needs and utilisation, activity patterns, home range and space use, foraging and selectivity, management of nutrition and supplementary feeding, methods of game species selection, record keeping of game populations, predator management and ecology of game diseases. The emphasis is on the application of these aspects in practical conservation management. (Total tuition time: ± 40 hours)

**RESOURCE MANAGEMENT IVB (RMG40QT)****1 X 3-HOUR PAPER****(Subject custodian: Department of Nature Conservation)**

This subject addresses advanced aspects and applications of game and wildlife management. An advanced theoretical basis is given for aspects such as management approaches, genetics in conservation, counting wildlife and the statistics of monitoring, modelling and GIS, with the emphasis on recent developments in these fields. An introduction is also given to aspects such as ecotourism. (Total tuition time: ± 40 hours)

