

# NATIONAL DIPLOMA: EQUINE SCIENCE

Qualification code: NDEQ04 - NQF Level 6

Campus where offered: Pretoria Campus (day classes)

Last year of new intake: 2018

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.

(Deviations approved by the Senate in August 2005.)

## CURRICULUM

Consult the 2018 Faculty Prospectus for the full contents of the qualification.

### FIRST YEAR

CODE	SUBJECT	CREDIT	PREREQUISITE SUBJECT(S)
<b>FIRST SEMESTER</b>			
COA101T	Computer Application I*	(0,125)	
EAP101T	Equine Anatomy and Physiology I	(0,125)	
EQB111T	Equine Breeding I	(0,125)	
PSC121T	Pasture Science I	(0,125)	
TOTAL CREDITS FOR THE SEMESTER:		0,500	
<b>SECOND SEMESTER</b>			
EQN111T	Equine Nutrition I	(0,125)	
STB201T	Stable Management II	(0,125)	Equine Breeding I
VTS101T	Veterinary Science I	(0,125)	
ZTN211T	Zootechnology II	(0,125)	Equine Anatomy and Physiology I
TOTAL CREDITS FOR THE SEMESTER:		0,500	
TOTAL CREDITS FOR THE FIRST YEAR:		<b>1,000</b>	

### SECOND YEAR

CODE	SUBJECT	CREDIT	PREREQUISITE SUBJECT(S)
<b>FIRST SEMESTER</b>			
AEC101T	Agricultural Production Economics I	(0,125)	
MFM201T	Mare and Foal Management II	(0,125)	Equine Breeding I
SLM201T	Stallion Management II	(0,125)	Equine Breeding I
VTS211T	Veterinary Science II	(0,125)	Veterinary Science I
TOTAL CREDITS FOR THE SEMESTER:		0,500	



## SECOND SEMESTER

DMN211T	Data Management II	(0,125)	Computer Application I
FRY111T	Farriery I	(0,125)	
STB301T	Stable Management III	(0,125)	Stable Management II
ZTN311T	Zootechnology III	(0,125)	Zootechnology II

TOTAL CREDITS FOR THE SEMESTER: 0,500

TOTAL CREDITS FOR THE SECOND YEAR: 1,000

## THIRD YEAR

CODE	SUBJECT	CREDIT	PREREQUISITE SUBJECT(S)
<b>FIRST OR SECOND SEMESTER</b>			
EXP1EQS	Work-Integrated Learning I (on completion of all the above subjects)	(0,500)	
EXP2EQS	Work-Integrated Learning II	(0,500)	Work-Integrated Learning I
TOTAL CREDITS FOR THE THIRD YEAR:		<b>1,000</b>	
TOTAL CREDITS FOR THE QUALIFICATION:		<b>3,000</b>	

### SUBJECT INFORMATION (OVERVIEW OF SYLLABUS)

Please take note that for the 2020 academic year certain modules will be assessed as continuous assessment. Please contact the Academic Department for further information.

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 25 October 2019, the syllabus content was defined as follows:

#### A

### AGRICULTURAL PRODUCTION ECONOMICS I (AEC101T) 1 X 3-HOUR PAPER (Subject custodian: Department of Crop Sciences)

Introduction to and background of management economics. Principles of the micro-economics of production elements of general farming management. Guidelines for human resource management in agriculture. Aspects of risk and uncertainty management in farming. (Total tuition time: ± 40 hours)

#### C

### COMPUTER APPLICATION I (COA101T) CONTINUOUS ASSESSMENT (Subject custodian: End User Computing Unit)

Students have to acquire theoretical knowledge (computing fundamentals) and practical skills as an end-user in operating systems and MS Office suite applications (MS Word, MS Excel and MS PowerPoint) on an introductory level. Students will do online and computer based tests. The modules are mapped with SAQA and IC3 Essential Skills for Digital Literacy (international certification). (Total tuition time: ± 40 hours)

#### D

### DATA MANAGEMENT II (DMN211T) CONTINUOUS ASSESSMENT (Subject custodian: End User Computing Unit)

Students have to acquire basic theoretical knowledge and advanced practical skills as end-users using MS Office Access. Principles of electronic data processing, including data capturing, data manipulation, data processing and information management. The practical applications will be customised to support data management as the specialisation field. (Total tuition time: ± 40 hours)



**E****EQUINE ANATOMY AND PHYSIOLOGY I (EAP101T)** **1 X 3-HOUR PAPER**  
**(Subject custodian: Department of Animal Sciences)**

An introduction to the basic anatomy and physiology of the horse, referring to the musculoskeletal system, organs and organ systems, as well as specific aspects of neurology and endocrinology. (Total tuition time: ± 112 hours)

**EQUINE BREEDING I (EQB111T)** **1 X 3-HOUR PAPER**  
**(Subject custodian: Department of Animal Sciences)**

An introduction to basic mammalian genetics, especially as applied to horse breeding. Horse diseases related to genetic deficiency. (Total tuition time: ± 80 hours)

**EQUINE NUTRITION I (EQN111T)** **1 X 3-HOUR PAPER**  
**(Subject custodian: Department of Animal Sciences)**

An introduction to livestock nutrition. The anatomy and physiology of the digestive system of the horse, feed analyses and a horse's nutrient requirements. Classification and characteristics of different fodders. Practical horse feeding, as well as basic ration formulation. (Total tuition time: ± 80 hours)

**F****FARRIERY I (FRY111T)** **1 X 3-HOUR PAPER**  
**(Subject custodian: Department of Animal Sciences)**

An intensive study of all theoretical aspects of the shoeing of horses, as well as practical hoof care. The aim is not to train farriers, but to present the practice of shoeing to enable students to make a better assessment of the newly shod horse. (Total tuition time: ± 84 hours)

**M****MARE AND FOAL MANAGEMENT II (MFM201T)** **1 X 3-HOUR PAPER**  
**(Subject custodian: Department of Animal Sciences)**

A complete study, with practical demonstrations, of the handling and care of a mare and foal, from the foal's birth to its weaning. (Total tuition time: ± 54 hours)

**P****PASTURE SCIENCE I (PSC121T)** **1 X 3-HOUR PAPER**  
**(Subject custodian: Department of Animal Sciences)**

The morphology and physiology of grasses. Veld types and the interaction between livestock and pastures. Methods and principles of veld management. The characteristics, nutritional value and productivity of veld. The burning of veld, bush encroachment and radical veld improvement. The establishment, maintenance and management of cultivated pastures. The most important grasses, legumes, fodder trees and shrubs. Feed conservation and the planning of a fodder-flow programme. (Total tuition time: ± 50 hours)

**S****STABLE MANAGEMENT II (STB201T)** **1 X 3-HOUR PAPER**  
**(Subject custodian: Department of Animal Sciences)**

The layout of buildings and the construction of stables, ancillary buildings and arenas. Field management and fencing. All aspects of the daily management of a stable yard and the handling of horses. (Total tuition time: ± 51 hours)

**STABLE MANAGEMENT III (STB301T)** **1 X 3-HOUR PAPER**  
**(Subject custodian: Department of Animal Sciences)**

This subject is divided into two subsections. The first covers the management of labour, as well as business, administrative and financial tasks concerning the running of a yard. The second is a study of exercise physiology. Exercise routines and the application of physiological norms in the exercising of horses. Riding programmes and the basic training of horses. (Total tuition time: ± 31 hours)



**STALLION MANAGEMENT II (SLM201T)****1 X 3-HOUR PAPER****(Subject custodian: Department of Animal Sciences)**

An in-depth study of the handling, training and health of the stallion, with special reference to a healthy stallion. (Total tuition time: ± 50 hours)

**V****VETERINARY SCIENCE I (VTS101T)****1 X 3-HOUR PAPER****(Subject custodian: Department of Animal Sciences)**

The pathogenesis of diseases and disturbances of normal function and balance in the body. The development of diseases as caused by micro-organisms, toxins, trauma and parasites. Functional disturbances. First-aid for horses. (Total tuition time: ± 92 hours)

**VETERINARY SCIENCE II (VTS211T)****1 X 3-HOUR PAPER****(Subject custodian: Department of Animal Sciences)**

Specific conditions affecting the musculoskeletal system and the different organ systems of the horse are discussed. Special problems of the newborn foal are dealt with separately. Introduction to veterinary drugs and their routes of administration, as well as preventative medicine. (Total tuition time: ± 107 hours)

**W****WORK-INTEGRATED LEARNING I (EXP1EQS)****WORK-INTEGRATED LEARNING****WORK-INTEGRATED LEARNING II (EXP2EQS)****WORK-INTEGRATED LEARNING****(Subject custodian: Department of Animal Sciences)**

A project as determined by the University in collaboration with the employer. (Total tuition time: six months)

**Z****ZOOTECNOLOGY II (ZTN211T)****1 X 3-HOUR PAPER****(Subject custodian: Department of Animal Sciences)**

All important and interesting technical data on the equine industry are dealt with in this subject. The historical development of a horse and the different breeds and types. The ideal conformation and the deviations from it, normal gaits and gait abnormalities. Identification of horses, including age determination, blood typing and legal implications. Tack and harness, bandages and protective gear. (Total tuition time: ± 126 hours)

**ZOOTECNOLOGY III (ZTN311T)****1 X 3-HOUR PAPER****(Subject custodian: Department of Animal Sciences)**

A study of saddles, harnesses, other relevant equipment and their uses. Training programmes for shows. Special care of horses at shows and of the competing horses. (Total tuition time: ± 104 hours)

