DIPLOMA IN EQUINE SCIENCE

Dip (Equine Science) - NQF Level 6 (360 credits)

Qualification code: DPEQ19

SAQA ID: 100975, CHE NUMBER: H16/14306/HEQSF

Campus where offered: Pretoria Campus

REMARKS

a. *Admission requirement(s) and selection criteria:*

Acceptance is subject to available capacity according to the Student Enrolment Plan (SEP). Once a programme is full, a waiting list will be in place to provide an opportunity for applicants to fill places of those who did not register on time. Applicants will be informed of their status per official letter from the Office of the Registrar, alternatively, they can check their application status on the TUT website, www.tut.ac.za.

- **APPLICANTS WITH A SENIOR CERTIFICATE OBTAINED BEFORE 2008:**

Admission requirement(s):
A Senior Certificate or an equivalent qualification, with at least an E symbol at Higher Grade or a D symbol at Standard Grade for English and Mathematics.

Recommended subject(s):
Biology, Mathematics, Physical Science and agricultural subjects.

Selection criteria:
Applicants are selected by means of a formula for academic merit, based on scholastic performance.

Formula for determination of academic merit:

SYMBOL	HG VALUE	SG VALUE
A	8	7
B	7	6
C	6	5
D	4	3
E	2	1

Applicants are given two additional points for the following subjects (SG or HG):

Agricultural Economics, Agricultural Science, Agriculture, Biology, Chemistry, Computer Principles, Computer Studies, Field Husbandry, Geography, Mathematics, Physical Science, Physics, Practical Agriculture and/ or Statistics.

- Applicants with a score of 23 and more according to the formula for academic merit determination will be considered for admission.
- Applicants with a score of 20 to 22 according to the formula for academic merit determination will be kept on a waiting list from which the applicants with the highest scores will be selected. Waiting lists will be cleared at the end of September and November.

- **APPLICANTS WITH A NATIONAL SENIOR CERTIFICATE OBTAINED IN OR AFTER 2008:**

Admission requirement(s):
A National Senior Certificate with a bachelor's degree or a diploma endorsement, or an equiva-lent qualification, with an achievement level of at least 4 for English (home language or first additional language) and 3 for Mathematics or Technical Mathematics or 4 for Mathematical Literacy.

Recommended subject(s):
Life Sciences and Physical Sciences.

Selection criteria:
To be considered for this qualification, applicants must have an Admission Point Score (APS) of at least **19** (with Mathematics) or **20** (with Mathematical Literacy or Technical Mathematics). Life Orientation is excluded from the APS calculation.

Assessment procedures(s):
- Applicants with a score of 23 and more will be considered for admission.
- Applicants with a score of 20 (19 with Mathematics or Technical Mathematics) to 23 will be kept on a waiting list from which the applicants with the highest APS will be selected. Waiting lists will be cleared at the end of September and November.

- **APPLICANTS WITH A NATIONAL CERTIFICATE (VOCATIONAL) AT NQF LEVEL 4:**

Admission requirement(s):
A National Certificate (Vocational) at NQF Level 4 with a bachelor's degree or a diploma endorsement, with at least 50% for English (home language or first additional language) and 40% for Mathematics or 50% for Mathematical Literacy, 40% for Life Orientation (excluded for APS calculation), and 50% for any other three compulsory vocational subjects.

Assessment procedures(s):
- Applicants with a score of 23 and more will be considered for admission.
- Applicants with a score of 20 (19 with Mathematics or Technical Mathematics) to 23 will be kept on a waiting list from which the applicants with the highest APS will be selected. Waiting lists will be cleared at the end of September and November.

Selection criteria:
To be considered for this qualification, applicants must have an Admission Point Score (APS) of at least **19** (with Mathematics) or **20** (with Mathematical Literacy). Life Orientation is excluded from the APS calculation.

b. *Recognition of Prior Learning (RPL), equivalence and status:*
See Chapter 30 of Students' Rules and Regulations.

c. *Intake for the qualification:*
January only.

d. *Presentation:*
Day classes.

e. *Minimum duration:*
Three years.

f. *Exclusion and readmission:*
See Chapter 2 of Students' Rules and Regulations.

g. *WIL in Equine Sciences I:*
See Chapter 5 of Students' Rules and Regulations.

CURRICULUM

FIRST YEAR

CODE	MODULE	NQF-L	CREDIT
11P105X	Communication for Academic Purposes	(5)	(10)

AAA105D	Animal Anatomy and Physiology I	(5)	(24)
CPL105X	Computer Literacy	(5)	(10)
INI125D	Information Literacy I (block module)	(5)	(2)
LFI125X	Life Skills I (block module)	(5)	(2)
MAS105X	Mathematics and Statistics I	(5)	(12)
SOR105D	Science for Occupational Purpose I	(5)	(12)

FIRST SEMESTER

ENT115D	Entrepreneurship I	(5)	(12)
PAE115D	Pasture Science I	(5)	(12)

SECOND SEMESTER

ABG115D	Animal Breeding and Genetics I	(5)	(12)
SMA115D	Stable Management I	(5)	(12)

TOTAL CREDITS FOR THE FIRST YEAR: **120**

SECOND YEAR

CODE	MODULE	NQF-L	CREDIT
EVA206D	Equine Veterinary Care II	(6)	(24)
EZA206D	Equine Applied Zootechnology II	(6)	(24)

FIRST SEMESTER

EQN216D	Equine Nutrition II	(6)	(12)
FAR216D	Farriery II	(6)	(12)
MFM216D	Mare and Foal Management II	(6)	(12)
STM216D	Stallion Management II	(6)	(12)

SECOND SEMESTER

ECI216D	Equestrian Coaching and Instruction II	(6)	(12)
EEP216D	Equine Exercise Physiology II	(6)	(12)

TOTAL CREDITS FOR THE SECOND YEAR: **120**

THIRD YEAR
On completion of all the modules.

CODE	MODULE	NQF-L	CREDIT
WEQ306D	WIL in Equine Sciences I	(6)	(120)

TOTAL CREDITS FOR THE THIRD YEAR: **120**

TOTAL CREDITS FOR THE QUALIFICATION: **360**

MODULE 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 module. At time of publication, the syllabus content was defined as follows:

A

ANIMAL ANATOMY AND PHYSIOLOGY I (AAA105D) **1 X 3-HOUR PAPER**

(Module custodian: Department of Animal Sciences)

An informed understanding of the principles of animal anatomy and physiology is important. Students will acquire knowledge, skills and applied competencies in areas such as: general anatomy and physiology of animals; animal cells, tissues and organs; musculoskeletal systems; animal body regulatory systems; haematology and body defense mechanisms; thoracic internal organs including cardiovascular and pulmonary systems; digestive system and accessory glands; male and female urogenital systems and mammary gland; applicable Acts and regulations; and how that knowledge relates to other fields, disciplines or practices. (Total notional time: 240 hours)

ANIMAL BREEDING AND GENETICS I (ABG115D) **1 X 3-HOUR PAPER**

(Module custodian: Department of Animal Sciences)

An informed understanding of the principles of animal breeding and genetics is important for livestock improvement. Students will acquire knowledge, skills and applied competencies in areas such as: basic concepts of animal breeding and genetics, qualitative and quantitative traits of inheritance, population genetics and evolution, selection methods, breeding programmes and mating systems, molecular genetics, Animal Improvement Schemes; applicable Acts and regulations; and how that knowledge relates to other fields, disciplines or practices. (Total notional time: 120 hours)

C

COMMUNICATION FOR ACADEMIC PURPOSES (11P105X) **1 X 3-HOUR PAPER**

(Module custodian: Office of the Executive Dean)

A workable knowledge of English is an essential skill for any graduate who is required to conduct themselves successfully in a professional working environment. This module will equip students with the competencies required to compose a selection of written texts related to communicating both internally and externally within a professional environment. In addition, the module includes strategies that are essential for the effective communication in various situations, including small groups to avoid unproductive conflict, a multicultural context, etc. (Total notional time: 100 hours)

COMPUTER LITERACY (CPL105X) **CONTINUOUS ASSESSMENT**

(Module custodian: End User Computing Unit)

This module provides students with foundational knowledge in computing fundamentals, essential digital skills in key applications based on MS Office Suite and network basics (i.e. MS Outlook and Internet). Online exams are mapped with End-User Computing: SAQA 49077 (61591) Core Element as well as Internet and Computing Core Certification (IC3). (Total notional time: 100 hours)

E

ENTREPRENEURSHIP I (ENT115D) **1 X 3-HOUR PAPER**

(Module custodian: Department of Management and Entrepreneurship)

Students will acquire knowledge, skills and competence in various types of businesses, management functions, budgeting, accounting, administration, banking, personnel management, customer relations and entrepreneurship including drafting a business plan. These skills will assist entrepreneurs in successfully starting and running a business. (Total notional time: 120 hours)

EQUESTRIAN COACHING AND INSTRUCTION II (ECI216D) **1 X 3-HOUR PAPER**

(Module custodian: Department of Animal Sciences)

Students will acquire knowledge, skills and applied competencies in areas such as: Teaching and coaching principles and practice for the equestrian; Basic equitation principles and schooling exercises for the equestrian and equine combination; Formulating lesson plans and managing performance programmes; Lungeing principles and practice; Specialised instruction and coaching at a fundamental level for purpose; Ethical equitation – human/rider effect on the training and welfare of equines; and how that knowledge relates to other fields, disciplines or practices. (Total notional time: 120 hours)

EQUINE APPLIED ZOOTECHNOLOGY II (EZA206D) **1 X 3-HOUR PAPER**

(Module custodian: Department of Animal Sciences)

Students will acquire knowledge, skills and applied competencies in areas such as: equine morphological assessment and profiling; natural and acquired equine locomotion patterns and gait abnormalities; horse breeds of the world and type classifications; tack and training equipment for a diversity of equestrian and related activities; natural equine behaviour principles and their application in practice; evaluating suitability for function and selecting horses for specific equestrian disciplines; stereotypic coping behaviours and behavioural problems in horses; learning theories and foundational equitation concepts; the equestrian sporting disciplines, management and specialist care of the competition horse; and how that knowledge relates to other fields, disciplines or practices. (Total notional time: 240 hours)

EQUINE EXERCISE PHYSIOLOGY II (EEP216D) **1 X 3-HOUR PAPER**

(Module custodian: Department of Animal Sciences)

Students will acquire knowledge, skills and applied competencies in areas such as: Physiology of equine exercise and training; Equine exercise, training for specific events and designing training and conditioning regimes; Biomechanical and kinesiological aspects of riding and training: The horse's neck, trunk and limbs; Concepts in training and riding associated with balance and posture; Concepts in training associated with equine locomotion, quality of movement and jumping technique; Poor performance in the equine athlete and welfare of the performance horse; and how that knowledge relates to other fields, disciplines or practices. (Total notional time: 120 hours)

EQUINE NUTRITION II (EQN216D) **1 X 3-HOUR PAPER**

(Module custodian: Department of Animal Sciences)

Students will acquire knowledge, skills and applied competencies in areas such: Nutritional physiology and body condition scoring; Determination of requirements for protein, energy, carbohydrates, acid and neutral detergent fibre, vitamins and minerals; Nutrient provision: protein, energy, fibre and raw material processing; Commercial rations/simple ration formulation and calculation; Feeding management responses: rates of passage, glycaemic response, fermentation kinetics; Exercise physiology and feeding strategies for sport horses; Nutritionally induced and metabolic disorders, and neutraceuticals; and how that knowledge relates to other fields, disciplines or practices. (Total notional time: 120 hours)

EQUINE VETERINARY CARE II (EVA206D) **1 X 3-HOUR PAPER**

(Module custodian: Department of Animal Sciences)

Students will acquire knowledge, skills and applied competencies in areas such as: recognising emergencies requiring the immediate attendance by a veterinarian; taking necessary first-aid steps until the vet arrives; identifying and understanding minor conditions which can be treated by the well-trained student him/herself; recognising common ailments of each of the biological systems of the horse; and how that knowledge relates to other fields, disciplines or practices. The module will provide the theoretical knowledge and the practical training to assist and communicate with the veterinarian during examination and treatment of the sick horse. (Total notional time: 240 hours)

F

FARRIERY II (FAR216D) **1 X 3-HOUR PAPER**

(Module custodian: Department of Animal Sciences)

Students are capacitated with detailed knowledge of horse husbandry principles and practice specific to the field of equine hoof care and principles of horseshoeing. Students will acquire knowledge, skills and applied competencies in areas such as: The history of horseshoeing and the evolution of modern farriery practices; Anatomy and physiology of the distal equine fore- and hind limb; Pathology of the equine foot; Farriery tools, equipment and horseshoeing accessories; Types of horseshoes, shoe-making and styles of horseshoeing; The practice of trimming and the principles of horseshoeing; and how that knowledge relates to other fields, disciplines or practices. (Total notional time: 120 hours)

I

INFORMATION LITERACY I (INI125D) **CONTINUOUS ASSESSMENT**

(Module custodian: Directorate of Library and Information Services)

Introduction of information literacy. Development of a search strategy and application of a search string to search engines and academic databases. Evaluation of information sources. Ethical and legal use of information. (Total notional time: 20 hours)

L

LIFE SKILLS I (LFI125X) **CONTINUOUS ASSESSMENT**

(Module custodian: Directorate of Student Development and Support)

Personal, socio-emotional and academic skills development for students in higher education. This module includes 1. Intra- and interpersonal skills (e.g. emotional intelligence, relationships, and conflict management); 2. General study skills (e.g. time management, goal setting, learning styles); 3. Health and wellness (e.g. HIV/AIDS, GBV issues, substance abuse); 4. Student life and adjustment (e.g. identity development, adjusting to a higher education environment); and 5. Financial management. (Total notional time: 20 hours)

M

MARE AND FOAL MANAGEMENT II (MFM216D) **1 X 3-HOUR PAPER**

(Module custodian: Department of Animal Sciences)

Students are capacitated with a detailed knowledge of equine stable management and horse husbandry principles and practice. Students will acquire knowledge, skills and applied competencies in areas such as: Mare reproductive biology and endocrinology; Broodmare selection practices; Mare infertility; Natural and assisted reproductive techniques; Parturition, dystocia and care of the neonatal foal; Managing the weanling, yearling and the lactating mare; and how that knowledge relates to other fields, disciplines or practices. (Total notional time: 120 hours)

MATHEMATICS AND STATISTICS I (MAS105X) **1 X 3-HOUR PAPER**

(Module custodian: Department of Mathematics and Statistics)

Numerical computations, mensuration, equations, functions, descriptive statistics, linear regression and curve fitting. (Total notional time: 120 hours)

P

PASTURE SCIENCE I (PAE115D) **1 X 3-HOUR PAPER**

(Module custodian: Department of Animal Sciences)

An informed understanding of natural and planted pastures for the nutrition of farm animals is important in livestock improvement. Students will acquire knowledge, skills and applied competencies in the following areas: Plant morphology, growth and development; Natural pastures; Plant nutrition and fertilisation; Pasture establishment and management; Fodder conservation; Environmental effects; Weeds and poisonous plants; Pasture production systems; applicable Acts and regulations; and how that knowledge relates to other fields, disciplines or practices. (Total notional time: 120 hours)

S

SCIENCE FOR OCCUPATIONAL PURPOSE I (SOR105D) **1 X 3-HOUR PAPER**

(Module custodian: Department of Chemistry)

The role and importance of chemistry in everyday life. Classification and properties of matter. Atoms, molecules and ions. General properties of aqueous solutions and reactions in aqueous solutions. Motion. Forces. Energy and power. Density. Pressure. Temperature and heat. Basic Electricity. Basic Magnetism. Waves. (Total notional time: 120 hours)

STABLE MANAGEMENT I (SMA115D) **1 X 3-HOUR PAPER**

(Module custodian: Department of Animal Sciences)

Students are capacitated with a detailed knowledge of equine stable management and horse husbandry principles and practice. Students will acquire knowledge, skills and applied competencies in areas such as: Stable complex design and construction; Equestrian training and riding arenas design and construction; Paddock management and field-kept horses; Modern equine stable management principles and practice; Care of stable-kept horses and organisation of equestrian facilities; Equine and equestrian enterprise administration and record keeping; Equine and equestrian enterprise personnel management; and how that knowledge relates to other fields, disciplines or practices. (Total notional time: 120 hours)

STALLION MANAGEMENT II (STM216D) **1 X 3-HOUR PAPER**

(Module custodian: Department of Animal Sciences)

Students are capacitated with a detailed knowledge of equine stable management and horse husbandry principles and practice. Students will acquire knowledge, skills and applied competencies in areas such as: Stallion reproductive biology and semen evaluation; Stallion selection practices and applied theories; Stallion infertility and impotency; Stallion management protocols for reproductive efficiency and welfare of breeding stock; Breeding methods and procedures; Semen preservation techniques and protocols for transportation; and how that knowledge relates to other fields, disciplines or practices. (Total notional time: 120 hours)

W

WIL IN EQUINE SCIENCES I (WEQ306D) **WORK-INTEGRATED LEARNING**

(Module custodian: Department of Animal Sciences)

A scientific body of knowledge within an international, but mainly in a South African context; and how that knowledge relates to other fields, disciplines or practices. Upon completion of the module, the student will be able to function in a working environment, which can include equine breeding operations, competitive and/or instructional stable yards, ecotourism and equine health care facilities as well as research or any relevant work environment associated in the cognitive field. (Total notional time: 1200 hours)