NATIONAL DIPLOMA: AGRICULTURE: ANIMAL PRODUCTION
(Extended curriculum programme with foundation provision)
(pending final approval - DHET)
Qualification code: NDAPF0 - NQF Level 6

Campus where offered: Pretoria Campus

Please note that this qualification had no new intakes since 2015.

REMARKS

a. Admission requirement(s) and selection criteria:

- **FOR APPLICANTS WHO OBTAINED A SENIOR CERTIFICATE BEFORE 2008:**

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

  Recommended subject(s):
  None.

  Selection criteria:
  Further selection for admission will be based on potential assessment as well as an interview with the departmental selection panel.

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

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

  Recommended subject(s):
  Agricultural Science and Life Sciences.

  Selection criteria:
  To be considered for this qualification, applicants must have an Admission Point Score (APS) of at least **19**.

  Assessment procedures:
  No further selection will be done. Applicants who achieve the minimum APS will be considered until the programme complement is full.

b. Minimum duration:
Four years.

c. Presentation:
Day classes.

d. Intake for the qualification:
January only.

e. Exclusion and readmission, Recognition of Prior Learning (RPL), equivalence, status and Work-Integrated Learning I and II:
See Chapter 2 of Students' Rules and Regulations.

f. Subject credits:
Subject credits are shown in brackets after each subject.

Key to asterisks:
* Information does not correspond to information in Report 151.
(Deviations approved by the Senate in September 2015.)

CURRICULUM

FIRST YEAR

CODE	SUBJECT	CREDIT	PREREQUISITE SUBJECT(S)
FPCHE05	Foundation Chemistry	(0,120)	
FPMAT07	Foundation Mathematics	(0,100)	
FPPHU06	Foundation Physics	(0,120)	
FIRST SEMESTER			
ANY101T	Agricultural Anatomy and Physiology	(0,115)	
FPLSK02	Foundation Life Skills	(0,080)	
SECOND SEMESTER			
FPENG05	Foundation English	(0,080)	
PAH101T	Production Animal Physiology	(0,115)	Agricultural Anatomy and Physiology
TOTAL CREDITS FOR THE FIRST YEAR:		**0,730**	

SECOND YEAR

CODE	SUBJECT	CREDIT	PREREQUISITE SUBJECT(S)
FIRST SEMESTER			
AAR201T	Applied Animal Reproduction	(0,138)	Foundation Chemistry Foundation English Foundation Mathematics Foundation Physics Production Animal Physiology
ANU201T	Animal Nutrition II	(0,125)	Foundation Chemistry Foundation English Foundation Mathematics Foundation Physics Production Animal Physiology
NTT201T	Natural Pastures	(0,125)	Agricultural Anatomy and Physiology
PAD201T	Production Animal Breeding	(0,137)	Foundation Chemistry Foundation English Foundation Mathematics Foundation Physics Production Animal Physiology
TOTAL CREDITS FOR THE SEMESTER:		0,525	

SECOND SEMESTER

CVR201T	Cultivated Pastures	(0,125)	Foundation English Natural Pastures
TOTAL CREDITS FOR THE SEMESTER:		0,125	
TOTAL CREDITS FOR THE SECOND YEAR:		**0,650**	

THIRD YEAR

CODE	SUBJECT	CREDIT	PREREQUISITE SUBJECT(S)
FIRST SEMESTER			
BPD201T	Beefer Production II	(0,100)	Agricultural Anatomy and Physiology Natural Pastures
MPD201T	Milk Production II	(0,100)	Animal Nutrition II Production Animal Breeding
PFM201T	Pig Production II	(0,100)	Animal Nutrition II Production Animal Breeding
POD201T	Poultry Production II	(0,100)	Animal Nutrition II Production Animal Breeding
SSP201T	Small Stock Production II	(0,100)	Agricultural Anatomy and Physiology Natural Pastures
TOTAL CREDITS FOR THE SEMESTER:		0,500	
SECOND SEMESTER			
BPD301T	Beefer Production III	(0,100)	Beef Production II
MPD301T	Milk Production III	(0,100)	Milk Production II
PFM301T	Pig Production III	(0,100)	Pig Production II
POD301T	Poultry Production III	(0,100)	Poultry Production II
SSP301T	Small Stock Production III	(0,100)	Small Stock Production II
TOTAL CREDITS FOR THE SEMESTER:		0,500	
TOTAL CREDITS FOR THE THIRD YEAR:		**1,000**	

FOURTH YEAR

CODE	SUBJECT	CREDIT	PREREQUISITE SUBJECT(S)
FIRST SEMESTER **After completion of all second-semester subjects in the third year.**			
EXP1AAP	Work-Integrated Learning I	(0,310)	
TOTAL CREDITS FOR THE SEMESTER:		0,310	
SECOND SEMESTER			
EXP2AAP	Work-Integrated Learning II	(0,310)	Work-Integrated Learning I
TOTAL CREDITS FOR THE SEMESTER:		0,310	
TOTAL CREDITS FOR THE THIRD YEAR:		**0,620**	
TOTAL CREDITS FOR THE QUALIFICATION:		**3,000**	

SUBJECT/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 subject/module. On 01 August 2017, the syllabus content was defined as follows:

A

AGRICULTURAL ANATOMY AND PHYSIOLOGY (ANY101T) **1 X 3-HOUR PAPER**

(Subject custodian: Department of Animal Sciences)

A systematic, summarised study of the cell, skeleton, muscular system, nervous system and sense organs, organs and organ systems of the different farm animals, as well as the physiology of digestion, milk production and endocrinology. (Total tuition time: ± 70 hours)

ANIMAL NUTRITION II (ANU201T) **1 X 3-HOUR PAPER**

(Subject custodian: Department of Animal Sciences)

The maintenance and production requirements of ruminants and monogastric animals. The nutrients in feed, namely protein, energy, vitamins, minerals and fats. Feed components and chemical feed additives. (Total tuition time: ± 96 hours)

APPLIED ANIMAL REPRODUCTION (AAR201T) **1 X 3-HOUR PAPER**

(Subject custodian: Department of Animal Sciences)

Artificial insemination. Semen quality. Ovum transplants. Oestrus synchronisation. Ovum harvest. Embryo transfer. (Total tuition time: ± 70 hours)

B

BEEFER PRODUCTION II (BPD201T) **1 X 3-HOUR PAPER**

(Subject custodian: Department of Animal Sciences)

An introductory study of beefer production with the emphasis on the beefer industry, breeds, breeding, reproduction, equipment, marketing, diseases and nutrition. (Total tuition time: ± 96 hours)

BEEFER PRODUCTION III (BPD301T) **1 X 3-HOUR PAPER**

(Subject custodian: Department of Animal Sciences)

An in-depth study of management programmes, marketing, seminars, applied nutrition, the efficiency of farming, judging, farm planning, beefer production and computer application. (Total tuition time: ± 70 hours)

C

CULTIVATED PASTURES (CVR201T) **1 X 3-HOUR PAPER**

(Subject custodian: Department of Animal Sciences)

Broadening the field of pasture science by studying the role of cultivated pastures, soil and veld management, radical veld improvement, irrigation, fodder conservation, grass and legume pastures, grazing mixtures, drought feeding and fodder-flow planning. (Total tuition time: ± 120 hours)

F

FOUNDATION CHEMISTRY (FPCHE05) **1 X 3-HOUR PAPER**

(Subject custodian: Department of Chemistry)

Scientific methodology and its use in discovering chemistry. Numbers in chemistry. The use of SI units. Matter. Atomic structure. Compounds in chemistry. The mole concept and chemical calculations. The electronic structure of the atom and electronic configurations within the periodic table. Chemical bonding. The states of matter and the binding forces within matter. Basic concepts of the gas laws. Solutions in chemistry. Acids, bases and salts. Oxidation and reduction and the balancing of equations. Organic chemistry and the chemistry of life. (Total tuition time: ± 160 hours)

FOUNDATION ENGLISH (FPENG02, FPENG05) **1 X 3-HOUR PAPER**

(Subject custodian: Department of Applied Languages)

Interpret, relate and reflect on all available and relevant resource material in proper English. Communicate orally in a comprehensible and clear manner in both general and subject-specific communication. Demonstrate intermediate-level of proficiency in written English. (Total tuition time: ± 160 hours)

FOUNDATION LIFE SKILLS (FPLSK02) **CONTINUOUS ASSESSMENT**
(Subject custodian: Department of Management and Entrepreneurship)
Campus ethics, learning styles and whole-brain thinking, self-image and assertive behaviour, time management, self-motivation, conflict management, sexuality and relationships, problem-solving skills, managing stress, the multicultural society, techniques for summarising and memorising, how to cope with assessments and assignments, creativity, and many more. The life-skills sessions are participative, with group discussions and personal application to optimise student's learning experience. (Total tuition time: ± 128 hours)

FOUNDATION MATHEMATICS (FPMAT07) **1 X 3-HOUR PAPER**
(Subject custodian: Department of Mathematics and Statistics)
Arithmetic. Graphs. Functions. Basic Algebra. Trigonometry. Differentiation. Mensuration. Basic statistics. (Total tuition time: ± 120 hours)

FOUNDATION PHYSICS (FPPHU06) **1 X 3-HOUR PAPER**
(Subject custodian: Department of Physics)
A general physics qualification with applications in the agricultural sciences: remedial mathematics, fundamental units, vectors and scalars, kinematics in 1-D, forces and Newton's laws of motion, work, energy and power, fluids, temperature and heat, gas laws, transfer of heat, electricity: electric forces and fields, electric circuit and magnetism: magnetic fields and force that magnetic fields exert. (Total tuition time: ± 60 hours)

N

NATURAL PASTURES (NTT201T) **1 X 3-HOUR PAPER**
(Subject custodian: Department of Animal Sciences)
The importance of veld pastures. The morphology, physiology and composition of grasses. Ecological and grazing concepts. Production characteristics of the main grazing areas of South Africa. Growth and production. Veld evaluation. The animal as a factor in veld management. Methods and principles of veld management. (Total tuition time: ± 120 hours)

M

MILK PRODUCTION II (MPD201T) **1 X 3-HOUR PAPER**
(Subject custodian: Department of Animal Sciences)
Introduction to milk production with the emphasis on the dairy industry, dairy breeds, nutrition and management, milk production, breeding, reproduction, herd health, herd composition, parlour layout and mechanical milking. (Total tuition time: ± 96 hours)

MILK PRODUCTION III (MPD301T) **1 X 3-HOUR PAPER**
(Subject custodian: Department of Animal Sciences)
An in-depth study of health regulations, the processing of dairy products, applied economics and management, applied nutrition, applied breeding, seminars, equipment, planning and layout of units, management programmes. Farm planning: milk production and computer application. (Total tuition time: ± 96 hours)

P

PIG PRODUCTION II (PFM201T) **1 X 3-HOUR PAPER**
(Subject custodian: Department of Animal Sciences)
An introductory study of the South African pig industry, breeds, breeding, reproduction, nutrition, diseases and housing. (Total tuition time: ± 30 hours)

PIG PRODUCTION III (PFM301T) **1 X 3-HOUR PAPER**
(Subject custodian: Department of Animal Sciences)
An in-depth study of breeding, management, housing, applied nutrition, marketing, economy, data processing, reproduction technology, farm planning - pig production and computer application. (Total tuition time: ± 30 hours)

POULTRY PRODUCTION II (POD201T) **1 X 3-HOUR PAPER**
(Subject custodian: Department of Animal Sciences)
An introductory study of poultry production with the emphasis on the poultry industry, breeds, breeding, reproduction, equipment, housing, nutrition and diseases. (Total tuition time: ± 96 hours)

POULTRY PRODUCTION III (POD301T) **1 X 3-HOUR PAPER**
(Subject custodian: Department of Animal Sciences)
An in-depth study of broiler management, layer management, seminars, the handling of manure, marketing, applied nutrition, hatchery management, strategic planning. Farm planning: poultry production and computer application. (Total tuition time: ± 96 hours)

PRODUCTION ANIMAL BREEDING (PAD201T) **1 X 3-HOUR PAPER**
(Subject custodian: Department of Animal Sciences)
Economic traits in farm animals. Basic Mendelian and molecular genetics. Population genetics, selection and breeding. (Total tuition time: ± 70 hours)

PRODUCTION ANIMAL PHYSIOLOGY (PAH101T) **1 X 3-HOUR PAPER**
(Subject custodian: Department of Animal Sciences)
Cardio-vascular and respiratory system. Body defence and immune system. Urinary system. Reproduction physiology and endocrinology. Digestive physiology. Lactation physiology. (Total tuition time: ± 70 hours)

S

SMALL STOCK PRODUCTION II (SSP201T) **1 X 3-HOUR PAPER**
(Subject custodian: Department of Animal Sciences)
Introduction to small stock production with the emphasis on the small stock industry, small stock races, breeding, reproduction, diseases, nutrition and production systems. (Total tuition time: ± 70 hours)

SMALL STOCK PRODUCTION III (SSP301T) **1 X 3-HOUR PAPER**
(Subject custodian: Department of Animal Sciences)
An in-depth study of management programmes, applied nutrition, marketing, equipment and housing, seminars, wool classification, breeding, judging, strategic planning. Farm planning: small stock production and computer application. (Total tuition time: ± 96 hours)

W

WORK-INTEGRATED LEARNING I (EXP1AAP) **WORK-INTEGRATED LEARNING**
WORK-INTEGRATED LEARNING II (EXP2AAP) **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)