

## DIPLOMA IN CROP PRODUCTION

Dip (Crop Production) - NQF Level 6 (360 credits)

**Qualification code: DPCP19**

SAQA ID: 100980, CHE NUMBER: H16/14270/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](http://www.tut.ac.za).

• **FOR APPLICANTS WITH A SENIOR CERTIFICATE OBTAINED BEFORE 2008:**

**Admission requirement(s):**

A Senior Certificate or an equivalent qualification, with an E symbol at Higher Grade or a D symbol at Standard Grade for English and Mathematics.

**Recommended subject(s):**

Agricultural subjects. Preference will be given to applicants with Biology and/or Physical Science.

**Selection criteria:**

Prospective students are assessed by means of the following formula for academic merit, based on scholastic performance:

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.

• **FOR 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 equivalent 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):**

Agricultural subjects. Preference will be given to applicants with Life Sciences and/or 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 procedure(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 22 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.

• **FOR 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 procedure(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 22 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.

- Recognition of Prior Learning (RPL), equivalence and status:*  
See Chapter 30 of Students' Rules and Regulations.
- Intake for the qualification:*  
January only.
- Presentation:*  
Day classes.
- Minimum duration:*  
Three years.
- Exclusion and readmission:*  
See Chapter 2 of Students' Rules and Regulations.
- WIL in Crop Production I:*  
See Chapter 5 of Students' Rules and Regulations.

## CURRICULUM

### FIRST YEAR

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



BOT105D	Botany I	(5)	(24)
CPL105X	Computer Literacy	(5)	(10)
INI125D	Information Literacy I (block module)	(5)	(2)
LF1125X	Life Skills I (block module)	(5)	(2)
MAS105X	Mathematics and Statistics I	(5)	(12)
SOR105D	Science for Occupational Purpose I	(5)	(12)

### FIRST OR SECOND SEMESTER

AGE115D	Agricultural Economics I	(5)	(12)
AGM115D	Agricultural Mechanisation I	(5)	(12)
CPR115D	Crop Production I	(5)	(12)
CPT115D	Crop Protection I	(5)	(12)
SOS115D	Soil Science I	(5)	(12)

TOTAL CREDITS FOR THE FIRST YEAR: **132**

### SECOND YEAR

CODE	MODULE	NQF-L	CREDIT	PREREQUISITE MODULE(S)
CPT206D	Crop Protection II	(6)	(24)	Crop Protection I
FLC206D	Field Crops II	(6)	(21)	Crop Production I
FRP206D	Fruit Production II	(6)	(21)	Crop Production I
SOS206D	Soil Science II	(6)	(21)	Soil Science I
VGP206D	Vegetable Production II	(6)	(21)	Crop Production I

TOTAL CREDITS FOR THE SECOND YEAR: **108**

### THIRD YEAR

On completion of all modules.

CODE	MODULE	NQF-L	CREDIT	PREREQUISITE MODULE(S)
WCP306D	WIL in Crop Production 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

#### AGRICULTURAL ECONOMICS I (AGE115D)

**1 X 3-HOUR PAPER**

*(Module custodian: Department of Crop Sciences)*

Description of the South African agricultural environment. Role-players in the South African agricultural industry. (Total notional time: 120 hours)

#### AGRICULTURAL MECHANISATION I (AGM115D)

**1 X 3-HOUR PAPER**

*(Module custodian: Department of Crop Sciences)*

Principles and operation of the basic power units applicable to agriculture. (Total notional time: 120 hours)



**B****BOTANY I (BOT105D)****1 X 3-HOUR PAPER****(Module custodian: Department of Horticulture)**

The role of plants in the living world. The plant Kingdom, endemic, indigenous, exotic, history and development. Plant classification. Classification systems. Morphology of higher plants. Seed, roots, stems, leaves, inflorescences, flowers, fruit. Anatomy of higher plants. Plant cells and cellular components, roots, stems and leaves. Plant physiology. Photosynthesis, respiration. Transpiration and water movement in the plant. Transpiration and water movement, mineral uptake and sugar translocation. (Total notional time: 240 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)

**CROP PRODUCTION I (CPR115D)****1 X 3-HOUR PAPER****(Module custodian: Department of Crop Sciences)**

An introduction to crop production. Factors influencing the adaptability of crops. The principles of different cultivation practices and crop improvement. Calculations regarding planting dates, crop potential, fertilisation, plant population, yields, calibration of implements. (Total notional time: 120 hours)

**CROP PROTECTION I (CPT115D)****1 X 3-HOUR PAPER****(Module custodian: Department of Crop Sciences)**

Basic entomology: a review of the morphology, development, reproduction, biology and classification of insects and mites, and collection and mounting of insect specimens. Plant pathology: a review of symptoms and the classification of plant diseases, the classification and biology of the different groups of plant pathogens, the disease cycle, the dissemination of plant pathogens. A review of the biology of weeds and methods of weed control: chemical weed control regarding classification, choice and the effectivity of herbicides. (Total notional time: 120 hours)

**CROP PROTECTION II (CPT206D)****1 X 3-HOUR PAPER****(Module custodian: Department of Crop Sciences)**

Pest control: a review of various pesticides, the use of standard reference material, a review of various pest control methods, the biology and control of known South African agricultural pests. Disease control: a review of different disease management strategies, separation of host and pathogen, cultural control, biological control, physical control, immunisation and resistance, and chemical control, with appropriate examples. Pathogen resistance: mechanisms of resistance and management of resistance. Application: a review of the different types of application equipment and the principles of application, and calibration of application equipment, with appropriate examples. Legislation and the safe use of agrochemicals: discussion of Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act No. 36 of 1947) and Hazardous Substances Amendment Act, 1992 (Act No. 53 of 1992) and various other important agricultural laws relating to pest control, a review of the safe use of agrochemicals. (Total notional time: 240 hours)



**F****FIELD CROPS II (FLC206D)****1 X 3-HOUR PAPER****(Module custodian: Department of Crop Sciences)**

Introduction to the industry of field crops. Cultural practices. Climatic requirements of field crops. Alternative field crops. Classification of field crops. Harvesting of field crops. Yield, quality and its maintenance. Sunflower production. Soya bean production. Potato production. Lucerne production. (Total notional time: 210 hours)

**FRUIT PRODUCTION II (FRP206D)****1 X 3-HOUR PAPER****(Module custodian: Department of Crop Sciences)**

An introduction to the South African fruit industry and the classification of the fruit. Important climatic factors for fruit production. Establishment and maintenance of the orchard. Structure growth development and production of tree fruit, maturity indices for harvesting, basics of harvesting, field handling and determining the fruit quality parameters with an emphasis of popular temperate fruit. (Total notional time: 210 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 (LF1125X)****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****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)

**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)

**SOIL SCIENCE I (SOS115D)****1 X 3-HOUR PAPER****(Module custodian: Department of Crop Sciences)**

Basic principles of chemistry: a basic introduction to the structure of an atom and the properties of the periodic table, including the naming of inorganic compounds, properties and the influence of soil pH on nutrient availability with special emphasis on the sources and properties of different fertilisers used. (Total notional time: 120 hours)



**SOIL SCIENCE II (SOS206D)****1 X 3-HOUR PAPER****(Module custodian: Department of Crop Sciences)**

Part A: Plant nutrients. Microorganisms and plant nutrition. Fertiliser recommendations. Irrigation. Part B: Soil forming processes. Soil classification. Soil surveys. Land capability and its assessment. Farm planning. (Total notional time: 210 hours)

**V****VEGETABLE PRODUCTION II (VGP206D)****1 X 3-HOUR PAPER****(Module custodian: Department of Crop Sciences)**

Vegetable production planning. Vegetable classification. Seed quality and germination. Seed treatments and manipulation. Soil preparation. Seedling production. Transplanting. Vegetable production systems. Fertilisers and fertigation. Irrigation and mulching. Vegetable production under protection. Vegetable crop rotation, hygiene, and crop protection. Quality and marketing management. Vegetable production (Tomato, beetroot, lettuce, cabbage, onions and pumpkins). (Total notional time: 210 hours)

**W****WIL IN CROP PRODUCTION I (WCP306D)****WORK-INTEGRATED LEARNING****(Module custodian: Department of Crop Sciences)**

A practical internship of one semester at an approved agriculture-related enterprise. A report on the internship, as well as tasks relating to the specialisation field of the student. An oral examination is taken at the end of the period. (Total notional time: 1200 hours)

