

Curriculum for the Diploma in Agriculture (2026)

Domain →		Agricultural Production ↓	Farm Business Management ↓	Resource Management ↓	Farm Engineering ↓	WIL ↓		
Exit level competence outcomes →→→→→		<ul style="list-style-type: none"> Plans selected production system/s Manages a production system in a sustainable manner to optimise economic return 	<ul style="list-style-type: none"> Adds value and markets the farm business effectively Manages agribusiness finances as a means of planning and monitoring the management of the enterprise Manages human resources of the farm Manages the external farm environment Engages in personal risk taking to exploit opportunities in an informed manner 	<ul style="list-style-type: none"> Makes informed decisions regarding sustainable land use 	<ul style="list-style-type: none"> Manages the farm infrastructure and machinery 	<ul style="list-style-type: none"> Self-Development Integration of knowledge with practical/real life experience 		
Generic→		Generic competencies and exit level outcomes <ul style="list-style-type: none"> Engages in personal risk-taking to exploit opportunities in an informed manner (Entrepreneurship) Identifies and addresses competency gaps between own and required performance (Self-management) Expresses a message in such a way that a previously identified audience understands it coherently (Communication) Works as a member of a team in such a way that the individual efforts have an optimum contribution to the successful completion of the task (Teamwork) Demonstrates a morally acceptable standard of behaviour as defined by the profession (Ethics) Information retrieval and processing (including ICT) 						
Semester Theme ↓								
Year 1	SEMESTER 1 Identify resources and production systems	Agricultural Biology (12) Cell biology; Plant structure & function; Plant growth & development; Taxonomy & classification of plants; Animal body systems; Reproduction and lactation; Digestive systems; Animal growth & development	Principles of Agricultural Economics (8) Introduction to economic theory; Production Economics in brief; Introduction to Marketing of agricultural products; Introduction to Demand and supply concepts; Money Origins and South African Banking Systems		Natural Resources (Physical) (16) Introduction and importance of climate studies in agriculture; Calculations using climate data; Introduction/hydrological cycle/background; Formation of surface water resources; Streams; Dams; Maps and water resources; Water quality; Introduction and background to mapping; Contour lines, terrain and terrain units, aspect, slope; Factors that influence the formation of different kinds of soils; Master Horizons of a profile; Horizon development processes; Soil physical properties and some chemical properties of soils (Acidity and Salinity)	Farm Infrastructure (8) The Tractor; Tillage Implements; Harvesting Implements; Farm Buildings; Farm Roads; Farm Fences	Academic Skills Development (12) Writing skills; basic agriculture numeracy; Library and information skills; Basic computer skills; and life skills 1st Year Practicals Animal, Crop and Farm Practicals	
		Farming Systems (12) Introduction to agriculture; Sustainable agriculture; Types of farming systems; Factors affecting farming system design; Ecosystems & agro ecology; Sustainable agricultural practices			Natural Resources (Vegetation) (8) Important terms and concepts in vegetation management; The grazing Lands of South Africa; Community development and succession; Veld Condition Assessment			
	SEMESTER 2 Determine requirements for sustainable agriculture	Genetics and Environment (12) Principles of production; Genetic principles of inheritance; Principles and methods of selection; Livestock breeds & types; Management & record keeping	Agribusiness (16) Marketing – Demand & Supply; prices; market reform; Marketing - value-adding / market plan; Production economics; Gross Margins; Farm Accounting – financial records		Environmental Impact (16) The Grass Plant (structure and physiology); Defoliation and the Grass Plant; The Animal Factor; Erosion and the control thereof (Grazing lands and Croplands); Regenerative Agriculture; Fire as a veld management tool; Alien Plants and their control	Farm Construction (8) Concrete; Contour Banks; Grassed waterways; Farm Roads; Use of Abney Level		
		Health and Nutrition (12) Economic impact of plant and animal diseases; Factors affecting plant & animal health; Colloidal, chemical & bio-chemical properties of soils & plant uptake; Interpreting soil test reports; Common signs, symptoms & disorders on unhealthy plants; Disease control methods in plants; Animal health & welfare; Clinical examination and diagnostic aids; Disease control methods in animals						
Year 2	SEMESTER 3 Plan and implement an enterprise	Forage Animal Production I (16) Principles of extensive livestock production; Veld grazing systems & early warning systems; Supplementation on veld; Establishment & management of cultivated pastures; Fodder conservation & utilisation; Stock & fodder flow planning; Principles of breeding & selection; Herd performance indicators; Selection methods; Common health problems in extensive livestock; Disease control programmes; Biosecurity & disease outbreak protocols	Agri-Business Management (16) Business Planning Principles and Inventories; Computerised spreadsheets for basic record keeping; Compilation of Financial Statements; Financial Statements and Analysis; Gross Margin System and Analysis; Farm Budgets Compilation & Analysis		Land Preparation (8) Soil sampling; Interpretation of soil analysis results; pH, macro and micronutrients availability; Soil Acidity and liming; Fertilisers, fertilizer requirements and recommendations; Organic sources of plant nutrients; Tillage systems and operations; Costing of operations and mechanisms; Regenerative practices	Hydraulics and Irrigation (16) Introduction to Irrigation and Stock Watering Systems; Soil Physical Properties and Drainage; Crop-Water Relationships and Climate Factors; Classification and Efficiency of Irrigation Systems; Irrigation Equipment and Layout Standards; Principles of Hydrostatics and Fluid Pressure; Hydrodynamics: Flow Rates and Velocity; Hydraulic Gradient Lines and Energy Management; Livestock Water Requirements and Storage Design; Pumping Systems and Irrigation Scheduling		
		Plant Propagation (16) Propagation environment; Breeding systems; Seed propagation; Vegetative propagation; Cell tissue culture / micro-propagation	Feasibility Study (8) Conduct a feasibility study on a given problem / question Topic analysis; Literature review; Economic and Technical Analysis					
	SEMESTER 4 Plan, implement and evaluate an enterprise	Intensive Animal Production (16) (Elective) Principles of intensive livestock production; Housing & facilities; Selection & fat stock judging; Backgrounding; Components of feed; Nutritional requirements & phase feeding; Ration formulation; Selecting & evaluating rations; Diseases of intensification; Health management & biosecurity; Slaughtering & carcass classification; Record keeping & evaluation	Agri-Entrepreneurship (16) Farm Accounting – financial records; Financial planning and budgeting; Electronic budgets; Entrepreneurship; Human Resource Management		Assessing Natural Resources (16) Introduction to land use planning and mapping; Climate capability classes, calculations, derivation and explanation; Calculation of dam storage; Catchments and surface run-off; Streamflow calculations; Crop water requirement calculations and potential irrigation areas; Basic animal water requirements calculations; Introduction to GIS; Mapping of Veld Type Units on the farm; Determining Carrying Capacity of a Farm; Introduction to Soil Classification System of South Africa; Concepts and terminology applicable to soil classification; The diagnostic top and subsoil horizons; Soil Forms and Family; Land capability classes, land potential and soil ecotopes; Soil survey and map drawing.			
		Field Crop Production (16) (Elective) Crop Husbandry; Pest and diseases; OHASA; Weed management; Hydroponics						
Year 3	SEMESTER 5 & 6 Plan and manage a profitable farming System	Production Modules (min 2) (24 each) (Minimum of 2 modules) Beef Production; Dairy Production; Game Management; Pig Production; Poultry Production; Small Stock Production Agronomy; Forestry; Fruit Production; Vegetable Production		Risk Management (32) Key drivers of change in Farm Business Management: understanding the agricultural operating environment; Objective-based planning for the farm business: management by objectives and target setting; Determining Risk Bearing Capacity; Risk Planning and managing risk: risk sources, strategies and mitigation; Price Risk Management: price probability and cumulative price probability functions and threshold prices; Income Risk Management: potential and expected revenue and standard income deviation; The Futures Market and Hedging (SAFEX); Climatic Risks; The New Global Trade Environment: trade agreements and macro-economic risks		Land Use Planning (32) Comprehensive farm plan on a real farm incorporating natural resource assessments, farming enterprises and farm economics. Other elements include digital mapping and suggestion of farm optimization strategies.	Practical Surveying (8) Practical Dumpy Level surveying	Work Integrated Learning (WIL) (24) Integration of Academic knowledge and skills, Practical Work Experience
	Credits (384)	160 (compulsory 144)		96		96	40	36

3rd Year Production Modules

Beef Production	Dairy Production	Game Management	Pig Production	Poultry Production	Small Stock Production	Agronomy	Forestry	Fruit Production	Vegetable Production
<ul style="list-style-type: none"> • Differentiate between Production systems • Differentiate between Commercial and Stud herd management • Breeding systems and genetic selection • Basic veterinary care for the beef herd • Feeding and nutrition of the beef herd • Production, Management and Marketing of beef cattle • Economics and Marketing of beef cattle 	<ul style="list-style-type: none"> • The SA dairy industry • Production systems • Herd dynamics and herd structure • Production norms & targets • Breeding & selection • Calf & heifer rearing • Nutrition • Pasture management • Health • Breeding & fertility management • Milk harvesting & processing • Marketing • Record keeping & herd management • Farm environment 	<ul style="list-style-type: none"> • The advantages and disadvantages of converting from domestic stock to game • Marketing options for game farms • Factors to be considered before the introduction of game • Population management of game • Determination of carrying capacities • Methods of conducting game counts • Harvesting of Game • Specialised veld management for game • Intensive breeding of rare game • Harvesting of Game • The use of contractors • The advantages and disadvantages of collaborative/co-operative game farming 	<ul style="list-style-type: none"> • The SA pig industry • Housing & site layout • Breeding & selection • Nutrition • Health • Managing the breeding herd • Managing the grower herd • Marketing • Carcass classification • Record keeping & herd management 	<ul style="list-style-type: none"> • Poultry Housing • Poultry Nutrition • Health Management • Broiler Production • Layer Management • Egg Production 	<ul style="list-style-type: none"> • Identify common breeds and types of sheep and goats • Select suitable breeds for given conditions and production objectives • Breeding and selection principles within a flock • Breeding management of sheep and goats • Sheep and goat nutrition • Diseases in Small Stock • Marketing and record keeping • Perform basic operations on sheep and goats • Class and bale a wool clip (Wool School) 	<ul style="list-style-type: none"> • Introduction to agronomic industry • Identification and classification of agronomic crops • Production requirements for various agronomic crops • Suitable and adaptable crop selection • Production and marketing plan for various agronomic crops • Application of agronomic cultural practices • Yield estimates and marketing of various agronomic crops • Research trial planning, design, establishment, monitoring and reporting • Principles and practices for sustainable crop production • Developing an Environmental Management Systems and auditing 	<ul style="list-style-type: none"> • Forest production overview • Forest Legislation and environmental guideline • Forest Industry • Uses of timber • Tree growth and wood formation • Forest site classification and tree species matching • Propagation methods • Land preparation and establishment • Weed control • Pest and disease control • Plantation maintenance • Harvesting and log transportation • Log processing 	<ul style="list-style-type: none"> • Intro to fruit industry • Concept of sustainability • Integrated environmental management. • Developing an environmental management system and auditing. • Post harvest handling • Packhouse management • Temperate fruits • Subtropical fruits • Orchard management 	<ul style="list-style-type: none"> • Introduction to vegetable production industry • Production plan for a vegetable enterprise • Range and variety of vegetable crop production systems and approaches • Production guidelines of different leafy, root, and fruit vegetable crops. • Post-harvest handling physiology/ technology of vegetable crops • Research trial design • Principles and practices for sustainable crop production • Developing an Environmental Management systems and auditing