education

Department:
Education
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE (VOCATIONAL)

SUBJECT GUIDELINES

AGRI-BUSINESS

NQF Level 4

September 2007

AGRI-BUSINESS - LEVEL 4

CONTENTS

INTRODUCTION

1 DURATION AND TUITION TIME

2 SUBJECT LEVEL FOCUS

3 ASSESSMENT REQUIREMENTS

3.1 Internal assessment

3.2 External assessment

4 WEIGHTED VALUES OF THE TOPICS

5 CALCULATION OF FINAL MARK

6 PASS REQUIREMENTS

7 SUBJECT AND LEARNING OUTCOMES

7.1 Integrated management of a small agricultural enterprise

8 RESOURCE NEEDS FOR THE TEACHING OF PRIMARY AGRICULTURE

8.1 Phased development of training and demonstration farm

8.2 Resource needs training and demonstration

INTRODUCTION

A. What is Agri-Business?

The National Certificates (Vocational) extends from NQF Levels 2 to 4 in Further Education and Training Colleges. Agri-Business is an optional Vocational subject of in the Primary Agriculture programme. The subject covers the following fields of study:

- Basic farm accounting
- Entrepreneurship in agricultural contexts
- Collecting data, costing, planning and budget construction
- Sustainability and importing and exporting
- Integrated management of a small agricultural enterprise

Basic Farm Accounting, Entrepreneurship and Collecting Data Costing, Planning and Budget Construction are at least started in Level 2, but Sustainability and Importing and Exporting and Integrated Management of Small Agricultural Enterprises are addressed at Levels 3 and 4 only.

The subject aims to equip students with skills, values and knowledge necessary to progress through all the levels of the Primary Agriculture programme.

B. Why is Agri-Business important in the Primary Agriculture programme?

The Primary Agriculture programme is designed to equip students to enter a mixed farming situation. Agri-Business enables students to manage a farm as a viable and successful business enterprise.

C. The link between the Agri-Business Learning Outcomes and the Critical and Developmental Outcomes

The methods of teaching and assessment are vital for the achievement of the Critical Outcomes and Developmental Outcomes. During the three years of the National Certificates (Vocational) programme, students are responsible, individually and in groups, for live animals and crops, and consequently, keep journals in which they answer, amongst others, reflective questions.

The assessment questions will require students to go beyond mere recall and into solving problems that relate to farms as business. The topics linked to the practical work require students to go beyond this immediate context by asking “What if...?” and similar questions. Questions relating to the planning of farm activities can be used to promote in-depth thinking.

Given these teaching and assessment processes, by the end of the three years the students should have covered all seven Critical Outcomes to some extent, and most if not all of the Developmental Outcomes. Critical thinking, critical evaluation and seeing the world as a set of interrelated systems will be easier to address by the third year of the programme, when the students are at Level 4 and they have more information available and are able to consider a wider range of options.

D. Factors that contribute to achieving the Agri-Business Learning Outcomes

- Enabling environment – this subject should be presented in the context of small, micro and medium enterprises (SMMEs), emerging small-scale farmers and personal needs.
- Resources – students should have access to all the necessary resources needed for the chosen practical activities at hand.
- Experiential exposure – students should be exposed to real work and simulated work environments.
- Suitably qualified lecturers – lecturers should have a solid command of subject knowledge and skills and be well informed about legislation, community issues and accessing support systems, for example systems provided by the Department of Agriculture.

1 DURATION AND TUITION TIME

This is a one year instructional programme comprising 200 teaching and learning hours. The subject has been planned as part of a full-time programme, but could be offered on a part-time basis provided that all the assessment requirements set out here are adhered to.

Students with special educational needs (LSEN) must be catered for in a way that eliminates barriers to learning.

2 SUBJECT LEVEL FOCUS

- Demonstrate an understanding of agri-business.

3 ASSESSMENT REQUIREMENTS

3.1 Internal assessment (50 percent)

Students must to be prepared for assessment following the assessment policy of the institution offering the NCV programme.

3.1.1 Theoretical component

The theoretical component will form 50 percent of the internal assessment.

The student will be required to achieve all outcomes of the subject at this level. All Subject Outcomes will contribute to the formative assessment of this subject.

3.1.2 Practical component

The practical component will form 50 percent of the internal assessment.

It must be clearly indicated which outcomes were achieved in each practical assessment, and the rating for each one. All practical assessments must be recorded in the Portfolio of Evidence (PoE).

- **What constitutes "practical" in Agri-Business? A general comment**

Throughout the NCV in Primary Agriculture, students will be growing crops and looking after animals in the Plant and Animal Production courses respectively.

The best form of assessment will be one that is highly integrated, where students will be using their practical activities with crops and animals as the basis for writing reports which cut across subject boundaries, and where assessment questions can go beyond the limitations of the particular experience by asking, for example "Suppose in addition to growing spinach you were also growing additional crops A and B. Explain..." Questions could also provide hypothetical information and ask students to analyse the situation. In the context of Agri-Business, this amounts to simulations or case studies, which is the nearest to "practical" that can be achieved when the students are not working on a farm with the full range of features that the Learning Outcomes and range statements envisage.

In the discussion on the balance of "theoretical" and "practical" work in this subject guide for Agri-Business, "practical" is taken to include work with simulations and case studies as well as dealing with data that the students have themselves collected in the field.

3.2 External assessment (50 percent)

A national examination is conducted annually in October or November by means of a paper/s set externally and marked and moderated externally.

External assessment details are set out in the *Assessment Guidelines: Agri-Business* (Level 4).

4 WEIGHTED VALUES OF THE TOPICS

TOPICS	WEIGHTED VALUES
1. Integrated management of a small agricultural enterprise	100
TOTAL	**100**

5 CALCULATION OF FINAL MARK

Continuous assessment:	Student's mark/100 x 50/1 = a mark out of 50	(a)
Examination mark:	Student's mark/100 x 50/1 = a mark out of 50	(b)
Final mark:	**(a) + (b) = a mark out of 100**	

All marks are systematically processed and accurately recorded to be available as hard copy evidence for, amongst others, purposes of moderation and verification.

6 PASS REQUIREMENTS

The student must obtain fifty (50) percent in ICASS and fifty (50) percent in the examination.

7 SUBJECT AND LEARNING OUTCOMES

On completion of Agri-Business Level 4 the student should have covered the following topic:

Topic 1: Integrated management of a small agricultural enterprise

7.1 Topic 1: Integrated management of a small agricultural enterprise

7.1.1 Subject Outcome 1: Demonstrate an understanding of some systems used in running a farm.

Learning Outcome

The student should be able to:

- Explain the use of a simple human resources system, including payroll management, in a small farm, using templates provided.

  Range: This should include an analysis of skills needed, and an appropriate human resouces development plan.
- Use a simple computerised accounting system with information of the sort encountered on a small farm.

  Range: Although the choice of package will be up to the institution providing this programme, it may be helpful to use a spreadsheet-based system as this could also be used without a computer by students in situations where a computer is not available.
- Complete a tax return for a farm, and calculate VAT, SITE, and other relevant taxes used in a small enterprise.

7.1.2 Subject Outcome 2: Develop a marketing plan for a small agri-business.

Learning Outcome

The student should be able to:

- Gather information about market demand and size, transport and other marketing costs for existing and potential new commodities.
- Construct a costed plan for a small enterprise to market existing and new commodities within the region.

  Range: Assume that some other agent is responsible for any international marketing, so the students need not be familiar with the procedures involved in shipping produce outside the borders of South Africa.

7.1.3 Subject Outcome 3: Prepare a whole farm budget and establish a proper integrated information system for an Agri-Business.

Learning Outcome

The student should be able to:

- Prepare an integrated whole farm budget.
- Use sensitive analysis (what-if functions) to determine the economic and financial viability of a business.
- Develop an information system for a commercially-driven Agri-Business.
- Use the information system to generate managerial information for improved decision-making.

8 RESOURCE NEEDS FOR THE TEACHING OF PRIMARY AGRICULTURE

8.1 Phased development of training and demonstration farm

The following is a summarised phased development approach that is suggested for the establishment of a training and demonstration farm mainly for the NCV programme. It is suggested that the development of the programme be done in phases. Staff appointment has not been included

- **Phase 1:**
  - Farm layout or land use planning
  - Bush clearing on cropland
- **Phase 2:**
  - Build, equip and stock the broiler unit
  - Build, equip and stock the egg layer unit
  - Install irrigation reticulation
  - Establish vegetable field crops and seedling units
  - Establish a beekeeping unit
  - Erect external security fence
- **Phase 3**
  - Establish pastures
  - Erect internal fences and allocate grazing camps
- **Phase 4**
  - Build, equip and stock dairy, beef, goat and pig units
  - Extend training courses

8.2 Resource needs training and demonstration

FARM INFRASTRUCTURE	
1. BROILER PRODUCTION AND PROCESSING UNIT	• Building costs: 5 x 57.5m^2 • Equipment (brooders, drinkers, tube feeders) • Complete broiler processing equipment
2. LAYER AND EGG PROCESSING UNIT	• Building costs: 1 x 64m^2 • Equipment (includes cages) • 500 point of lay 20 week old pullets
3. DAIRY AND MILK PROCESSING UNIT	• Buildings • Equipment for milking and milk processing • 12 heifers
4. BEEF UNIT	• Sheltered beef feedlot unit: 1 x 30m • Beef handling pens and equipment • 12 Nguni heifers • 1 Nguni bull
5. GOAT UNIT	• 20 young nanny goats • 2 quality breeding billy goats • Goat handling pens and equipment
6. PIG UNIT	• Buildings • Equipment (brooders, farrowing rails, troughs) • 8 gilts and 2 boars
7. APIARY UNIT	• Apiary equipment including honey extractor
8. ESTABLISHED PASTURES	• Land preparation, fertilisation planting 8ha
9. IRRIGATION	• 1ha vegetables, 4ha maize/beans and 8ha pastures • Rising main from the river to reservoir and gravity flow (lower lands, paddocks) or booster pump (upper lands)

10. FARM TOOLS AND AGROCHEMICALS	• Equipment (hand tools, knapsacks, mower, wheelbarrows, spades etc.) • Farm shed
11. SEEDLING NURSERY (Vegetables, trees, shrubs)	• Shadecloth, poles, standpipes, equipment
12. WATER RETICULATION	• Reticulation to paddocks, livestock units
13. VEHICLES	• 1 tonne pick up and canopy • 1 medium size tractor • 1 mini bus for transporting learners • Tractor trailer and implements
14. FENCING	• External security fence: 2 km • Internal fences: 1.6km
15. MISCELLANEOUS	• Laboratory with equipment for plant and soil science • Laboratory with equipment for animal and poultry science • Teaching aids (data projectors, screen, DVD player etc.) • Computers with internet links • Library with relevant books and magazines