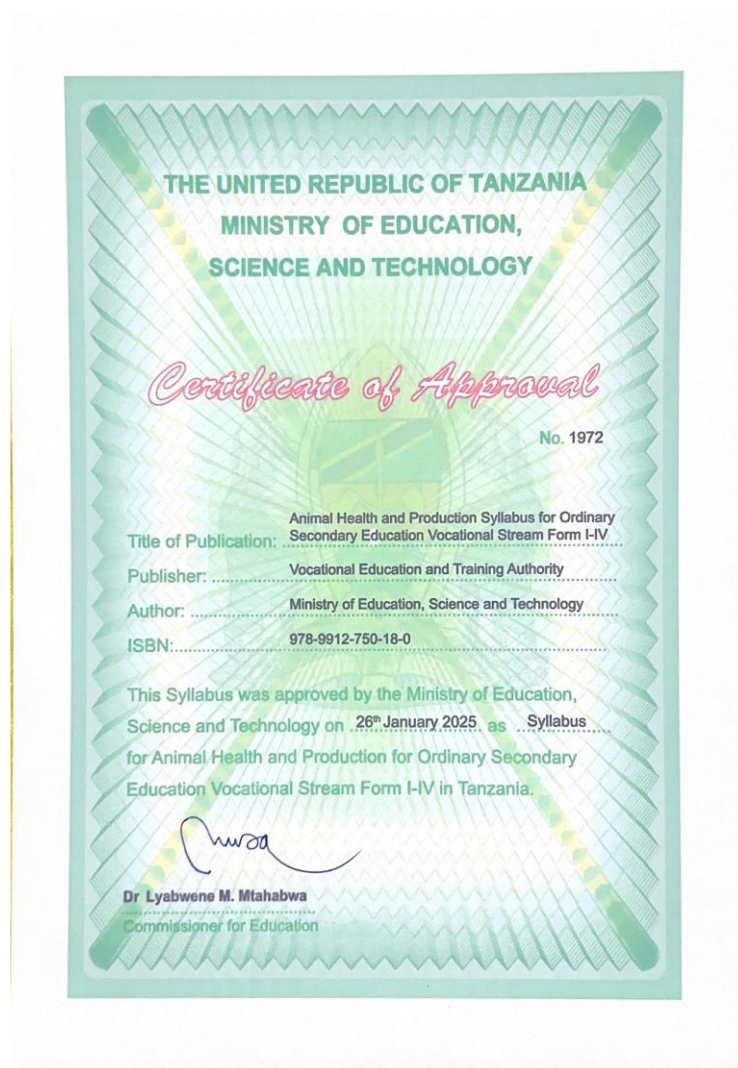


THE UNITED REPUBLIC OF TANZANIA

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY



ANIMAL HEALTH AND PRODUCTION SYLLABUS FOR ORDINARY SECONDARY
EDUCATION VOCATIONAL STREAM FORM I-IV

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Revised

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Abbreviations and Acronyms

AHP	Animal Health and Production
NGOs	Non-Governmental Organizations
NECTA	National Examinations Council of Tanzania
VETA	Vocational Educational and Training Authority
ICT	Integrate cross-cutting
CA	Continuous Assessment
TIE	Tanzania Institute of Education

Definition of Key Terms

Competence: The ability to use knowledge, understanding, practical and thinking skills to perform effectively to the workplace standards required in employment.

Occupational Standards: Specific requirements of competences that people are expected to demonstrate in a particular occupational area, including knowledge and relevant attitudes. They also act as performance tools for the assessment of the prescribed outcomes.

Performance criteria: Indicate the expected results or outcome in the form of evaluative statements.

Standard: It is a set of statements, which if proven true under working conditions, means that an individual is meeting an expected level and type of performance

Assessment: The process of collecting evidence and making judgments on whether competency has been achieved, or whether specific skills and knowledge have been achieved that will lead to the attainment of competency.

Learning Activity: A sub-unit (step), which reflects the learning sequence to achieve the broad learning objectives of a unit.

Specific competences: A statement of broad learning objectives, which prescribe the requirements of a standard in the form of practical skills, knowledge and appropriate attitudes

Assessment Knowledge: This is essential knowledge needed in order to demonstrate competences that are associated with performing a given task.

Circumstantial knowledge: Detailed knowledge, which allows the decision-making in regard to different circumstances and cross cutting issue

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For and on behalf of:

Vocational Education and Training Authority



CPA. Anthony M. Kasore

Director General

1.0. Introduction

Animal Health and Production is one of the occupations taught in the Ordinary Secondary Education Vocational Stream. Learning Animal Health and Production is essential because Tanzania is rich in livestock and has a variety of indigenous and exotic animal species. These resources can be leveraged to support the country's economy. By teaching Animal health and production, students will develop practical skills that enable them to benefit from animal products and by products such as milk, meat eggs, skin and etc. The livestock industries reduce dependency on imported animals and animal products. In turn, these industries will foster economic development.

Upon completion of the program, students will possess both theoretical and practical knowledge of livestock, from source of raw material identification to advanced manufacturing procedures. They will be capable of operating livestock industry, producing livestock products and by products, and implementing sustainable practices in the industry, all while adhering to safety regulations. Additionally, students will be equipped with the business skills necessary for managing a livestock enterprise, ensuring high standards of quality and innovation in all aspects of the livestock industry.

A graduate of this occupation may be employed in both Government and private sectors such as ministries/departments, training institutions research institutions, livestock agencies and projects, self-employment, small, medium and large livestock industries and in Non-Governmental Organizations (NGOs).

The Animal Health and Production Syllabus is designed to guide the teaching and learning of Animal Health and Production at Ordinary Secondary Education Form I-IV Vocational Stream in the United Republic of Tanzania. The syllabus interprets the competences a student needs to develop while learning Animal Health and Production It contains valuable information that will enable teachers to effectively plan their teaching process and help learners develop the intended competences.

2.0. Main Objectives of Education in Tanzania

The main objectives of education in Tanzania are to enable every Tanzanian to:

- a) Develop and improve his or her personality so that he or she values himself or herself and develops self-confidence;
- b) Respect the culture, traditions and customs of Tanzania; cultural differences; dignity; human rights; attitudes and inclusive actions;

- c) Advance knowledge and apply science and technology, creativity, critical thinking, innovation, cooperation, communication and positive attitudes for his or her own development and the sustainable development of the nation and the world at large;
- d) Understand and protect national values, including dignity, patriotism, integrity, unity, transparency, honesty, accountability and the national language;
- e) Develop life and work-related skills to increase efficiency in everyday life;
- f) Develop a habit of loving and valuing work to increase productivity and efficiency in production and service provision;
- g) Identify and consider cross-cutting issues, including the health and well-being of the society, gender equality, as well as the management and sustainable conservation of the environment; and
- h) Develop national and international cooperation, peace and justice per the constitution of the united republic of Tanzania and international conventions.

3.0. General Competencies for Ordinary Secondary Education Vocational Stream

The general competences for Ordinary Secondary Education, form 1–IV, Vocational Education stream are to:

- a) Strengthen, broaden and develop a deeper understanding of the knowledge, skills and attitudes developed at the Primary Education level;
- b) Develop technical and entrepreneurial skills that will enable him/her to employ oneself, to be employed and to manage life by using his/her environment appropriately;
- c) Safeguard customs and traditions, national unity, national virtues, democracy, respect for human and civil rights, duties and responsibilities associated with such rights;
- d) Strengthen communication using language skills and technology, technical knowledge and technical skills;
- e) Apply technical knowledge and skills in designing, discovering and making various things to solve challenges in society, including cross cutting issues;
- f) Appreciate procedures and safety rules in using technical tools correctly and
- g) Apply the technical knowledge and skills acquired to develop oneself with vocational and technical education and join the workforce.

4.0. General Competences of the Occupation

The general competencies in this occupation include the ability to:

1. Maintain farm safety, tools, equipment and machines;
2. Manage farm animals, fish pond and bee apiary;
3. Manage rangeland, pastures and fodder crops;
4. Make hay and silage, and conserve crop stove's;

5. Design, construct and fabricate farm infrastructures;
6. Design and construct livestock marketing and slaughter facilities;
7. Design and construct fish pond and fabricate bee hives;
8. Formulate and compound animal feed;
9. Slaughter livestock and process livestock products and by-products;
10. Control quality of livestock and livestock products;
11. Breed animals and perform breeding biotechnologies;
12. Diagnose and treat animal diseases;
13. Attend simple animal surgical and obstetrical cases;
14. Manage farm activities; and

Inspect, grade and process livestock and livestock products

5.0. Main and Specific Competences

The main and specific competences to be developed are presented in Table 1

Table 1: *Main and Specific Competences for Form I-IV*

Main competences	Specific competences
1.0 Maintaining Safety of Farm Infrastructure and Surroundings	1.1. Administration of Farm Occupational Health and Safety 1.2. Managing Farm Accidents and Incidents 1.3. Maintain Farm Surroundings 1.4. Perform First Aid in Farm
2.0 Rearing Poultry	2.1. Rearing Chicken 2.3. Rearing ducks 2.4. Rearing other domestic poultry species
3.0 Rearing domestic Animals	3.1. Rearing ruminant 3.2. Rearing non-ruminant 3.3. Rearing working animals
4.0 Performing apiculture	4.1. Managing bee hive and apiary 4.2. Processing bee products
5.0 Performing Fish farming	5.1. Performing fish pond farming 5.2. Perform Smart Technologies Fish Farming 5.3. Performing Lake Fish Farming 5.4. Performing Marine Farming 5.6. Harvesting and Preserving Fish

Main competences	Specific competences
	5.7. Controlling Quality of Fish
6.0 Designing and Construction of Farm Infrastructure	6.1. Preparing a Layout of Infrastructure for New Livestock Farm 6.2. Constructing Livestock Farm Structures 6.3. Fabricating Farm Equipment 6.4. Designing a Layout for Livestock Markets and Processing Facilities:
7.0 Feeding Livestock and Fish	7.1. Improving Rangeland 7.2. Cultivating Pastures 7.3. Conserving Pastures and Crop Residues 7.4. Preparing Animal and Fish Feeds
8.0 Processing Livestock and Utilize Livestock Products	8.1. Processing Milk 8.2. Preparing Carcasses 8.3. Processing Inedible Slaughter by Products 8.94. Processing Meat and Edible Slaughter by Products
9.0 Controlling Quality of Farm Products.	9.1. Controlling Quality of Livestock 9.2. Controlling Quality of Livestock Products 9.3. Controlling Quality of Hides and Skins
10.0 Performing Breeding of Livestock	10.1. Managing Breeding Stock 10.2. Maintaining Hatchery
11.0 Managing Livestock Disease	11.1 Performing Tentative Diagnosis of Livestock Diseases 11.2. Nursing Diseased Livestock 11.3. Performing Prevention and Control of Livestock Diseases
12.0 Managing Farm Production Activities	12.1. Performing Herd Management Practice 12.2. Managing Various Farm Records 12.3 Managing Farm Business 12.4 Preparing Farm Project Proposal

6.0. The Roles of Teachers, Students and Parents in Teaching and Learning

Good relationships between a teacher, student and parent, or guardian is fundamental to ensuring successful learning. This section outlines the roles of each participant in facilitating effective teaching and learning of Animal Health and Production.

7.0. The teacher

The teacher is expected to:

- (a) Help the student to learn and develop the intended competences in Animal Health and Production.
- (b) Use teaching and learning approaches that will allow students with different needs and abilities to:
 - (i) Develop the competences needed in the 21st Century; and
 - (ii) Actively participate in the teaching and learning process.
- (c) Use student centred instructional strategies that make the student a centre of learning which allow them to think, reflect and search for information from various sources;
- (d) Create a friendly teaching and learning environment;
- (e) Prepare and improvise teaching and learning resources;
- (f) Conduct formative assessment regularly by using tools and methods which assess theory and practice;
- (g) Treat all the students according to their learning needs and abilities;
- (h) Protect the student from the risky environment while he or she is at school;
- (i) Keep track of the student's daily progress;
- (j) Identify individual student's needs and provide the proper intervention;
- (k) Involve parents/guardians and the society at large in the student's learning process; and
- (l) Integrate cross-cutting issues and ICT in the teaching and learning process.

8.0. The student

The student is expected to:

- (a) Develop the intended competences by participating actively in various learning activities inside and outside the classroom; and
- (b) Participate in the search for knowledge from various sources, including textbooks, reference books and other publications in online libraries.

9.0. The parent/guardian

The Parents/Guardian is expected to:

- (a) Monitor the child's academic progress in school;

- (b) Where possible, provide a child with the needed academic support;
- (c) Provide a child with a safe and friendly home environment which is conducive for learning;
- (d) Keep track of a child's progress in behavior;
- (e) Provide the child with any necessary materials required in the learning process; and
- (f) Instill in a child a sense of commitment and positive value towards education and work.

10.0. Teaching and Learning Methods

The teaching and learning methods are instrumental in developing student's competences. This Syllabus suggests teaching and learning methods for each activity which includes but not limited to demonstration, practical/hands-on activities, observations, role play, simulation, group works, peer teaching/learning, discussions, presentations, field visits, research, and project works. However, a teacher is advised to plan and use other appropriate methods based on the environment or context. All the teaching and learning methods should be integrated with the everyday lives of students. The focus is expected to be on practical application and developing cognitive, affective, and psychomotor skills through learner-centred methods. Vocational teachers act as facilitators, incorporating both school base teaching and project work supervision.

11.0. Teaching and Learning Resources

The process of teaching and learning requires different resources. In that regard, both a teacher and students should work together to collect or improvise alternative resources available in the school and home environment when needed. Teachers and students are expected to constantly seek for information from various sources to effectively facilitate the teaching and learning process. The list of approved textbooks and reference books shall be provided by the TIE.

12.0. Assessment

Assessment is important in teaching and learning of Animal Health and Production. It is divided into formative and summative assessments. Formative assessment informs both the teacher and students on the progress of teaching and learning, and in making decisions on improving the teaching and learning process. Teachers are therefore, expected to apply a wide range of formative assessment methods which include but not limited to

demonstration, discussions, presentations, oral questions, experiments, observations, practical assignments and projects.

Summative assessment, on the other hand, focuses on determining student's achievement of learning. Teachers are expected to use a variety of summative assessments including Form Two National Assessment, terminal examination, annual examination, mock examination and project. The scores obtained from these assessments will be used as Continuous Assessment (CA). Therefore, the continuous assessments shall contribute

60% and the National Form IV Examination shall be 40% as indicated in Table 2.

Project Work

Project work is a carefully planned and clearly defined task or problem that a student undertakes, either alone or in a group, to enhance and apply the skills and knowledge gained in the classroom, workshop, kitchen, or laboratory. It is based on the principles of "Learning by Doing" and "Learning by Living." In this context, the implementation of Project Work in secondary schools' vocational streams is essential. Projects in the vocational stream should be conducted in the core subject (occupation). To ensure its success, the supervision and assessment of student project work must be consistent with the established guidelines provided by National Examinations Council of Tanzania (NECTA).

Table 2: *Contribution of Continuous Assessment and National Examination in the final score*

Assessment Category	Weight (%)	National Examination
Form Two National Assessment (FTNA)	6.0	40
Form Three Terminal Examination	5.0	
Form Three Annual Examination	5.0	
Form Four Mock Examination	7.0	
Project	7.0	
Form Two Practical	10.0	
Form Three Practical	10.0	
Form Four Practical	10.0	
Total	60	

13.0. Number of Periods

Animal Health and Production, for Ordinary Level Secondary Education provides estimates of the time that will be spent in teaching and learning in consideration of the complexity of the specific competences and the learning activities. Eight periods of 40 minutes each have been allocated for this subject per week, whereby 2 periods will be used for theory and 6 for practical sessions which may require double periods (e.g., 80) to allow sufficient time for hands-on activities.

14.0. Teaching and Learning Contents

The contents of the Syllabus are organized into a matrix with seven (07) columns which are main competences, specific competences, learning activities, suggested teaching and learning methods, assessment criteria which is divided into (process assessment, products/service assessment and underpinning knowledge), suggested teaching and learning resources and number of periods as presented in Table 3 to 6.

15.0. Form One

Table 3: Detailed contents for Form One

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
1. Maintaining safety of farm infrastructure and surroundings	1.1 Administration of farm occupational health and safety	(a) Maintaining farm safety rules and regulations	Group discussion: Guide the students into manageable groups and guide them to discuss and come up with the meaning of maintaining farm safety rules and regulations Demonstration Demonstrate to the students how to wear protective gears and cleaning surrounding	The student should be able to: • Select tools, equipment and safety gears • Wear protective gears • Clean the surroundings • Maintain farm safety rules and regulations • Set a routine for monitoring occupational health and safety • Store tools, equipment and safety gear	Farm safety rules and regulations maintained as per the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should explain how to maintain farm safety Principles: The student should outline the principles related to maintaining farm safety rules and regulations Theories: The student should: • Explain the importance of maintain farm safety rules and regulations • Outline farm rules and regulations Circumstantial knowledge: Detailed knowledge about • Climate and weather condition	This element can be achieved at a workplace or training institution. The following tools, utensils, equipment and protective gear are to be available Computer set • Printer • Ruler • Table • Cabinet file • Safety boots • Gloves • Overalls • Cleaning materials • Brush • Safety gears s • Dust covers • Dust mask • Dust bins	196

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
			Practical Work Guide the students to wear protective gears and clean surrounding					
		(b) Maintaining farm general cleanliness	Brainstorming: Guide the students to brainstorm on maintaining farm general cleanliness Demonstration Demonstrate to the students to perform general cleanliness and disposing waste Practical Work Guide the students to	The student should be able to • Select tools, equipment and safety gears • Handle tools equipment and safety gears • Perform general cleanliness • Dispose the waste • Identify causes of occupational health and safety hazards in a farm • Clean tools and equipment	Farm general cleanliness maintained according to the standards required	Knowledge evidence: Detailed knowledge of: Method used: The student should explain how to Maintain farm general cleanliness Principles: The student should state the principles related to maintaining farm general cleanliness Theories: The student should be able to: • Define cleanliness • Highlight the importance of general farm cleanliness Circumstantial knowledge: Detailed knowledge about • Workplace organization	This element can be achieved at a work place or training institution. The following tools, utensils, equipment and protective gears are to be available • Safety boots • Street broom • Rake • Hoe • Slasher • Bush knife • Gloves • Overalls • Brush • Safety gears • Dust covers •	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
			perform general cleanliness and dispose waste			and culture	- Dust mask - Dust bins	
		(c) Maintaining safe working environment	Brainstorming: Guide the students to brainstorm on maintaining safe working environment Demonstration Demonstrate to the students how to perform general cleanliness and disposing waste Practical Work Guide the students to perform general cleanliness and dispose waste by recycling	The student should be able to - Select tools, equipment and safety gears - Handle tools, equipment and safety gears - Perform cleanliness - Dispose the waste - Maintain safe working environment - Demonstrate safe behaviour - Make periodic inspection on working environment	Working safe environment maintained as per the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should elaborate how to maintain safe working environment Principles: The student should state the principles related to maintaining safe working environment Theories: The student should be able to: - Enumerate predisposing factors creating unsafely working environment. - Highlight the importance of maintaining safe work environment - Describe the factors to consider for maintaining safe work environment Circumstantial knowledge: Detailed knowledge about	This element can be achieved at a work place or training institution. The following tools, utensils, equipment and protective gears are to be available - Safety boots - Street broom - Rake - Hoe - Slasher - Bush knife - Gloves - Overalls - Cleaning materials - Brush - Safety gears - Dust covers - Dust mask - Dust bins - Safety signs	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
						Workplace organization and culture		
		(d) Maintaining personal safety	Brainstorming: Guide the students to brainstorm on maintaining personal safety Demonstration Demonstrate to the students how to wear personal protective gears before working Practical Work Guide the students to wear personal protective gears	The students should be able to - Select tools, equipment and safety gears - Handle tools equipment and safety gears - Identify tools and materials used - Maintain personal safety regularly - Clean tools and equipment - Store tools and equipment	Personal safety maintained in farm animals as per the standards	Knowledge evidence: Detailed knowledge of: Method used: The student should explain how to maintain personal safety Principles: The student should state the principles related to maintaining personal safety Theories: The student should be able to : - - Describe the importance of maintain personal safety - Clarify how to maintain personal safety in farm animals Circumstantial knowledge: Detailed knowledge about - Workplace organization and culture	This element can be achieved at a work place or training institution. The following tools, utensils, equipment and protective gears are to be available - Safety boots - Gloves - Overalls - Cleaning materials - Brush - Dust covers - Dust mask - Dust bins	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
		(e) Maintaining personal hygiene	Brainstorming: Guide students to brainstorm on maintaining personal hygiene Demonstration Demonstrate to the students how to perform hand washing, teeth brushing, nails cutting, clothes washing and etc Practical Work Guide the students how to perform hand washing, teeth brushing, nails cutting, clothes washing and etc	The student should be able to • Select tools, equipment and safety gears • Handle tools and equipment used in personal hygiene • Perform various types of personal hygiene • Make periodic inspection on personal hygienic measures in farm animals. • Identify hazardous materials in farm animal	Personal hygiene maintained as per the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should explain how to maintain personal hygiene Principles: The student should describe the principles related to maintain personal hygiene Theories: The student should be able to: • Define personal hygiene • Highlight the types of personal hygiene • Explain the importance of maintain personal hygiene • List down the procedures for performing personal hygiene Circumstantial knowledge: Detailed knowledge about • Workplace organisation and culture	This element can be achieved at a work place or training institution. The following tools, utensils, equipment and protective gears are to be available • Printer • Ruler • Table • Cabinet file • Safety boots • Gloves • Overalls • Cleaning materials • Brush • Safety gears (PPE) • Dust covers • Dust mask • Dust bins	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
		(f) Maintaining farm safety signs	Brainstorming: Guide the students to brainstorm on maintaining farm safety signs Demonstration Demonstrate to the students how to identifying different farm safety signs Practical Work Guide the students to identify different farm safety signs	The student should be able to • Select tools, equipment and safety gears • Interpret different safety signs in a farm • Clean tools and equipment • Store tools, equipment and safety gears	Farm safety sign is maintained as per the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student s explain how to maintain farm safety signs Principles: The student should state the principles related to maintaining farm safety signs Theories: The student should be able to : • Explain the importance of farm safety signs • Describe the categories of safety signs Circumstantial knowledge: Detailed knowledge about • Workplace organization and culture	This element can be achieved at a work place or training institution. The following tools, utensils, equipment and protective gear are to be available • Printer • Ruler • Table • Cabinet file • Safety boots • Gloves • Overalls • Cleaning materials • Brush • Safety gears (PPE) • Dust covers • Dust mask • Dust bins	
Knowledge evidence: Detailed knowledge of: Method	This element can be achieved at a work place or	(a) Setting staff emergence information dissemination	Brainstorming: Guide the students to brainstorm on staff emergency	The student should be able to • Select tools, equipment and safety gears • Prepare different posters	Emergency information dissemination sates as per the required standards	•		163

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
used: The student should elaborate how to set staff emergence information dissemination . Principles: The student should outline the principles related to setting staff emergence information dissemination . Theories: The student should be able to: Enumerate advantage of disseminating	training institution. The following tools, utensils, equipment and protective gears are to be available - Printer - Ruler - Table - Cabinet file - Safety boots - Gloves - Overalls - Cleaning materials - Brush - Safety gears	n.	information dissemination Demonstration Demonstrate to the students how to prepare posters Practical Work Guide the students to prepare posters	- Prepare staff emergency information dissemination - Call staff to assemble together - Interpret different emergency information disseminated - Store tools, equipment and safety gears				

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
information - Explain how to prepare different posters Circumstantial knowledge: Detailed knowledge about - Workers involvement in safety program	(PPE) - Dust covers - Dust mask - Dust bins							
		(b) Handling farm physical hazards	Brainstorming: Guide the students to brainstorm on hazards and physical hazards Demonstration Demonstrate to	The student should be able to - Select tools, equipment and safety gears - Wear protective gears - Identify farm physical hazards - Manage physical hazards - Dispose physical hazards	Farm physical hazards handled as per the required standards.	Knowledge evidence: Detailed knowledge of: Method used: The student should explain how to handle farm physical hazards Principles: The student should describe principles related for handling farm	This element can be achieved at a work place or training institution. The following tools, , equipment and protective gears are to be available - Tool kits - Spades - Firefighting	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
			students how to handle electric hazards Practical Work Guide the students how to handle electric hazards	• Clean tools and equipment • Store tools, equipment and safety gears		physical hazards • Theories: The student should be able to : • Distinguish types of farm physical hazards • Highlight the importance of proper handling of farm hazards Circumstantial knowledge: Detailed knowledge about • Workers involvement in safety program	equipment • Safety boots • Gloves • Overalls • Cleaning materials • Hoes • Brooms • Brushes • Dust bins • Dust covers • Dust masks	
		(c) Handling mechanical hazards	Field visit: Brainstorming: Guide the students to brainstorm on meaning of mechanical hazard Demonstration Demonstrate to the students how to handle bending,	The student should be able to: • Select tools, equipment and safety gears • Wear personal protective gears • Identify farm mechanical hazards • Manage mechanical hazards • Dispose hazards • Clean tools and equipment • Store tools, equipment and safety gear	Farm mechanical hazards handled as per the required standards.	Knowledge evidence: Detailed knowledge of: Method used: The student should explain how to handle mechanical hazards Principles: The student should clarify the principles related to handling mechanical hazards Theories: The student should be able to : • Outline the types of mechanical hazards • Describe the importance	This element can be achieved at a work place or training institution. The following tools, , equipment and protective gears are to be available • Tool kits • Spades • Firefighting equipment • Safety boots • Gloves • Overalls • Cleaning materials • Hoes	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
			punching and cutting hazards Practical Work Guide the students to handle bending, punching and cutting hazards Observation Observe how students handle mechanical hazards			of proper handling of farm mechanical hazards - Identify predisposing factor which causes farm hazards - Describe rules for handling mechanical hazards - Highlight how to dispose mechanical hazards - Explain how to control mechanical hazards Circumstantial knowledge: Detailed knowledge about - Workers involvement in safety program	- Brooms - Brushes - Dust bins - Dust covers - Dust masks	
		(d) Handling farm chemical hazards	Brainstorming: Guide the students to brainstorm on the meaning of chemical hazards Demonstration Demonstrate to students how to	The student should be able to: - Select tools, equipment and safety gears - Wear protective gears - Identify farm common chemical hazards - Manage chemical hazards - Dispose chemical hazard - Make periodic inspection of farm	Chemical hazards handled as per the required standards.	Knowledge evidence: Detailed knowledge of: Method used: The student should explain how to handle farm chemical hazards Principles: The student should outline principles related to handling farm chemical hazards Theories: The student should be able to:	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are be available - Tool kits - Spades - Firefighting equipment - Safety boots - Gloves	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
			handling acaricides, herbicides and drugs hazards Practical Work Guide the students to handle acaricides, herbicides and drug hazards	- Clean tools and equipment - Store tools, equipment and safety gear		- Identify common chemicals used in animal farm - Describe the side effects of exposure to chemicals - Clarify the importance of proper handling of farm chemical hazards - Identify the predisposing factor which causes farm hazards - Explain disposing of farm chemical Circumstantial knowledge: Detailed knowledge about - Rules and regulations in handling chemicals	- Overalls - Hoes - Brooms - Dust bins - Incinerator - Masks - Eye googles - Decomposition pit	
		(e) Handling biological hazards in the farm	Brainstorming: Guide the students to brainstorm on biological hazard Demonstration Demonstrate to the students how to handle	The student should be able to: - Select tools equipment and safety gears - Wear personal protective gears - Identify common agent of biological hazards - Types of biological hazards	Farm biological hazard handled as per the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should narrate how to handle biological hazards in the farm Principles: The student should present the principles related to handling biological hazards in the farm	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears should be available - Tool kits - Spades - Firefighting equipment	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
			cadaver, blood, body fluid and faecal Practical Work Guide the students to handle cadaver, blood and body fluid and faeces	• Manage biological hazards • Dispose biological hazards • Clean tools and equipment • Store tools, equipment and safety gear		Theories: The student should be able to: • Enumerate the causes of biological hazards in the farm • Describe the importance of proper handling biological hazards 'in the farm • Identify the predisposing factor which causes farm hazards • Define the general concepts of farm accident and incidences	• Safety boots • Gloves • Overalls • Hoes • Brooms • Dust bins • Incinerator • Masks • Eye googles • Decomposition pit	
	1.3 Maintain farm surroundings	(a) Cleaning farm surroundings	Brainstorming: Guide the students to brainstorm on cleaning, disinfecting and sanitizing Demonstration Demonstrate to the students how	The student should be able to • Select tools and equipment • Clean farm surroundings • Dispose waste • Clean tools and equipment • Store tools, equipment and safety gears	Farm surroundings hygiene are maintained as per the required standards.	Knowledge evidence: Detailed knowledge of: Method used: The student should narrate how to Clean farm surroundings Principles: The student should state principles related to cleaning farm surroundings Theories: The student should be able to : • Explain how to clean of	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available • Slashers • Gloves • Overalls • Hoes	98

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
			to perform disinfecting of livestock shed, Practical Work Guide the students perform disinfecting of livestock shed			surroundings - Describe the importance of cleaning farm surroundings - Highlight how to dispose waste Circumstantial knowledge: Detailed knowledge about - Public Awareness and Education	- Brooms - Brushes - Dust covers - Over rolls - Dust mask - Dust masks - Dust bins	
		(b) Handle farm wastes	Brainstorming: Guide the students to brainstorm on farm waste Demonstration Demonstrate to the students how to decompose farm waste into organic fertilizer by land filling Practical Work	The student should be able to - Select tools and equipment - Wear protective gears - Identify farm waste - Clean of farm waste - Handle farm wastes - Waste disposal - Clean tools and equipment's	Farm waste handled as per the required set of standards.	Knowledge evidence: Detailed knowledge of: Method used: - The student should explain how to handle farm wastes Principles: The student should state the principles related to handling farm wastes Theories: The student should be able to : - Describe the types of farm waste - Clarify disposing farm wastes - Enumerate the benefits of	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available - Slashers - Safety boots - Gloves - Overalls - Cleaning materials - Hoes - Brooms - Brushes - Safety gears - Over rolls - Dust masks	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
			Guide the students to decompose farm waste into organic fertilizer by land filling			effective waste disposal include: - Describe waste disposal Circumstantial knowledge: Detailed knowledge about - Public Awareness and Education	- Dust bins - Rakes - Incinerator	
		(c) Disposing farm effluents	Brainstorming: Guide the students to brainstorm on the concept of farm influents Demonstration Demonstrate to the students how to recycle farm effluents Practical Work Guide the students to recycle farm effluents	The student should be able to: - Select tools and equipment - Wear protective gears - Identify types of farm influents - Identify methods of disposing farm effluents - Dispose different farm effluents - Clean tools and equipment - Store tools and equipment	Farm influents disposed according to the set standards method of disposing farm effluents	Knowledge evidence: Detailed knowledge of: Method used: The student should describe how to dispose farm effluents Principles: The student should state the principles related disposing farm effluents Theories: The student should be able to: - Identify types of farm effluents - Describe the consequences of mishandling farm wastes - Explain the economical utilization of farm waste	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available - Slashers - Safety boots - Gloves - Overalls - Hoes - Brooms - Brushes - Safety gears - Over rolls - Dust masks - Dust bins - Rakes	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
						products Circumstantial knowledge: Detailed knowledge about • Public Awareness and Education	• Decomposition pit	
	1.4 Performing first aid in farm	(a) Identifying basic first aid items	Group discussion: Guide the students in manageable groups, to elaborate first aid items Demonstration Demonstrate to the students how to identify basic first aid items Practical Work Guide the students to identify basic first aid items	The student should be able to: • Select tools and equipment. • Wear protective gears • Identify basic first aid items • Observe safety precautions • Sterilize first aid tools. • Store first aid kit.	Basic first aid items were identified according to the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should elaborate how to identify basic first aid items Principles: The student should state the principles of identifying basic first aid items Theories: The student should be able to : • Define first aid • Explain the importance of learning first aid • Enumerate the basic principles of first aid	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available • First aid Kits. • Stretchers. • Light blankets. • Sterilizers. • Towels • Overalls. • Over coats • gumboots • Medical gloves. • Safety boots	131

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
		(b) Practicing personal safety in providing first aid	Brainstorming: Guide the students to brainstorm on practicing personal safety in providing first aid Demonstration Demonstrate to the students how to wear personal protective gears before providing first aid Practical Work Guide the students to wear personal protective gears before providing first aid	The student should be able to: • Select tools and equipment. • Observe safety precautions. • Clean up tools, equipment and working place • Store tools, equipment and safety gears	Personal safety maintained during providing first aid according to the standards	Knowledge evidence: Detailed knowledge of: Method used: The student should explain how to maintain personal safety in providing first aid Principles: The student should explain principles of Practicing personal safety in providing first aid Theories: The student should be able to: • Highlight the uses of accessories in a first aid kit. • Describe precautions during using first aid items	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available • First aid Kits. • Stretchers. • Light blankets. • Sterilizers. • Towels • Overalls. • Over coats • gumboots • Medical gloves. • Safety boots.	
		(c) Performing artificial	ICT Based learning: Guide the	The student should be able to: • Select tools and	Artificial Respiration performed as	Knowledge evidence: Detailed knowledge of: Method used:	This element can be achieved at a workplace or training	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
		respiration	students through video clip to explore different ways of performing artificial respiration Group Work Guide the students in manageable groups to discuss and present findings concerning artificial respiration	equipment. - Observe safety precautions. - Perform artificial respiration. - Clean up tools, equipment and work place - Store tools, equipment and safety gears	per rules, regulations, and standards	The student should explain how to apply artificial respiration Principles: The student should outline the principles of Performing artificial respiration. Theories: The student should be able to : - Distinguish the types of artificial respiration. - Narrate the importance of performing artificial respiration - Explain how to perform artificial respiration - Enumerate precautions to be taken when performing artificial respiration	institution. The following tools, equipment and protective gears are to be available - First aid Kits. - Stretchers. - Light blankets. - Sterilizers. - Towels - Overalls. - Over coats - Gumboots - Medical gloves. - Safety boots - Computer - Internet facilities	
		Perform different first aid activities	ICT Based learning: Guide the students through video clip to explore different ways of performing	The student should be able to: - Select tools and equipment. - Observe safety precautions. - Identify types of first aid - Perform different first aid	Different first aid activities performed as per rules, regulations , and standards	Knowledge evidence: Detailed knowledge of: Method used: The student should narrate how to apply artificial respiration Principles: The student should explain principles of	This element can be achieved at a work place or training institution. The following tools, utensils, equipment and protective gears are to be available First aid Kits.	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
			different first aid activities Group Work Guide the student in manageable groups to discuss and present findings concerning perform different first aid activities	activities. - Clean up tools, equipment and working place - Store tools, equipment and safety gears		attending minor wounds. Theories: The student should be able to : - Differentiate types of wounds. - Explain how to control bleeding. - Enumerate procedures of providing first aid - Define first aid - explain artificial respiration	- Stretchers. - Light blankets. - Sterilizers. - Towels - Overalls. - Over coats - gumboots - Medical gloves. - Safety boots.	
2.0 Rearing of poultry	2.1 Rearing chicken	(a) Rearing layers flock	Group discussion: Guide the students In manageable groups to elaborate rearing layers flock Demonstration Demonstrate to student how to	The student should be able to: - Select work tools, equipment, utensils and safety gears - Clean chicken house - Disinfect chicken house - Prepare brooder - Introduce litter materials - Introduce and manage heat facility in the brooder - Place feeders and	Layers flock reared as per recommended animal husbandry practices	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to rear layers flock Principles: The student should enumerate the principles involved in rearing layers flock Theories: The student should be able to : Describe systems of rearing chicken	This element can be achieved at a work place or training institution. The following tools, utensils, equipment and protective gears are to be available - Buckets - Brooms (Hard and soft) - Spade (round and folk) - Rakes	268

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
			determine good and non-layer chicken Practical work: By using guide sheet, guide the students to determine good and non-layer chicken	drinkers • Handle day old chicks • House different layers • Feed different categories of layers • Set automatic drinkers • Administer vaccines, antibiotics and anthelmintic drugs • Collect, grade and pack eggs • Handle different categories of chicken • Handle sick chicken • Keep different farm records • debeak chicken • Store tools and		• Highlight the Importance of chicken farming • Identify breeds of layers • Explain how to control disease and parasites • Provide reasons for the Culling of inferior chicken • Circumstantial knowledge: Detailed knowledge about • Animal welfare • Precautions of handling disinfectants	• Hoes • Wheel barrows • Spray pumps • Brooder guard • Drinkers and feeders • Heat sources (Infrared bulb, charcoal stove, kerosene lamp, sow dust brooder, hay brooder) • Light sources (electricity, kerosene lamp, solar) • Weighing scales • Overalls • Gumboots • Masks • Examination gloves • Record book • Nest boxes • Egg trays • Catching hook and crates • Debeaking tools • knives	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
		(b) Rearing broilers flock	Group discussion: Guide the students in manageable groups to elaborate the meaning of broilers flock Demonstration Demonstrate to the students how to introduce and manage heat facility in the brooder Practical work: By using guide sheet lead the students to introduce and manage heat facility in the	The student should be able to: • Select work tools, equipment, utensils and safety gears • Clean chicken house • Disinfect chicken house • Prepare chicken enclosure • Introduce litter materials • Introduce and manage heat facility in the brooder • Place feeders and drinkers in house • Handle day old chicks • House different categories of chicken • Feed different categories of chicken • Set automatic drinkers • Administer vaccines, antibiotics and anthelmintic drugs • Collect, grade and pack eggs • Handle different categories of chicken	Broiler flock reared as per recommended animal husbandry practices	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to rear broilers flock Principles: The student should outline the principles involved in rearing broiler flock Theories: The student should be able to: • Describe systems of rearing chicken • Highlight the importance of chicken farming • Highlight the importance of maintaining hygiene • Explain different ways of Controlling parasites and diseases • Explain how to perform all managerial practices • Provide reasons for Culling inferior chickens • Highlight the significance of keeping records Circumstantial knowledge: Detailed knowledge about • Animal welfare rules and	This element can be achieved at a work place or training institution. The following tools, utensils, equipment and protective gears are to be available • Buckets • Brooms (Hard and soft) • Spade (round and folk) • Rakes • Hoes • Wheel barrows • Spray pumps • Brooder guard • Drinkers and feeders • Heat sources (Infrared bulb, charcoal stove, kerosene lamp, sow dust brooder, hay brooder) • Light sources (electricity, kerosene lamp, solar) • Weighing scales • Overalls	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
			brooder	- Handle sick chicken - Keep different farm records - debeak chicken - Store tools and		regulations	- Gumboots - Masks - Examination gloves - Record book - Nest boxes - Egg trays - Catching hook and crates - Debeaking tools - knives	
		Rearing local and crossbreeds flock	local chickens and crossbreeds flock Demonstration Demonstrate to the students how to perform treatment of sick chicken Practical work: By using guide sheet, lead the students to perform treatment of sick	The student should be able to: - Select work tools, equipment, utensils and safety gears - Clean chicken house - Disinfect chicken house - Prepare chicken enclosure - Introduce litter materials - Introduce and manage heat facility in the brooder - Place feeders and drinkers in house - Handle day old chicks	Local chickens and crossbreeds flock reared as per recommended animal husbandry practices	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to narrate how to rear local and cross breeds flock Principles: The student should state principles related to rearing local and cross breeds flock Theories: The student should : - Describe systems of rearing local and crossbreeds flock - Present different ways of housing different classes	This element can be achieved at a work place or training institution. The following tools, utensils, equipment and protective gears are to be available - Drinkers and feeders - Heat sources - Overalls - Gumboots - Masks - Nest boxes - Egg trays - Debeaker - Brooder guard	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
			chicken	- House different categories of chicken - Feed different categories of chicken - Set automatic drinkers - Administer vaccines, antibiotics and anthelmintic drugs - Collect, grade and pack eggs - Handle different categories of chicken - Handle sick chicken - Keep different farm records - debeak chicken - Store tools and		of chicken - Explain brooding chicks - Highlight the importance of feeding and providing water - Highlight the importance of disease and parasite control - Explain different managerial practices Circumstantial knowledge: Detailed knowledge about - Animal welfare rules and regulations	- Buckets - Brooms - Spade	
	2.2 Rearing ducks	(a) Rearing local ducks	Brainstorming: Guide the students to brainstorm on rearing local ducks Demonstration Demonstrate to the students how	The student should be able to: - Select work tools, equipment, utensils and safety gears - Clean duck house - Disinfect duck house - Make swimming basins - Place feeders and drinkers in house	Local ducks reared according to the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to rear local ducks Principles: The student should outline the principles involved in rearing local ducks Theories: The student	This element can be achieved at a work place or training institution. The following tools, utensils, equipment and protective gears are to be available - Drinkers and feeders - Overalls - Gumboots	268

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
			to vaccinate and treatment of sick duck Practical work: Guide the students to vaccinate and treat local ducks	• Handle incubating ducks • Handle ducklings • Feed all stages ducks • Provide vaccines, antibiotics and anthelmintics • P perform all managerial practice • Manage behaviours of different types of ducks • Identify selection criteria of ducks • Perform Culling of inferior ducks		should : • Describe systems of rearing ducklings • Highlight the importance of keeping local duck • Identify types of ducks • Differentiate between natural and artificial incubation • Enumerate brooding technique • Explain the importance of parasite and disease control Circumstantial knowledge: Detailed knowledge about: • Animal welfare rules and regulations	• Masks • Examination gloves • Record book • Nest box • Egg trays • Pair of scissors • Buckets • Brooms • Spade • Rakes	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
		(b) Rearing turkey	Brainstorming: Guide the students to brainstorm the meaning of turkey Demonstration Demonstrate to the student how to disinfect turkey house Practical work: By using guiding sheet, guide the students to disinfect turkey house	The student should be able to: • Select work tools, equipment, utensils and safety gears • Clean turkey house • Disinfect turkey house • Place feeders and drinkers in house • Handle incubating turkeys • Feed all stages turkey • Provide vaccines, antibiotics and anthelmintics • Perform all managerial practice	Turkey is reared according to the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to rear turkey Principles: The student should outline the principles related to rearing turkey Theories: The student should d: - • Describe systems of rearing turkey • Explain the importance of duck farming • Distinguish between natural and artificial incubation • List down brooding technique • Enumerate different ways of feeding different classes of ducks Circumstantial knowledge: Detailed knowledge about: • Animal welfare	This element can be achieved at a work place or training institution. The following tools, utensils, equipment and protective gears are to be available • Drinkers and feeders • Overalls • Gumboots • Masks • Examination gloves • Record book • Nest box • Egg trays • Pair of scissors • Buckets • Brooms • Spade	
		(c) Rearing	Class activities: Guide the	The student should be able to:	Gees are reared	Knowledge evidence: Detailed knowledge of:	This element can be achieved at a work place	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
		geese	students through class activities to elucidate the concept of geese Demonstration Demonstrate to the students how to perform cleaning in the swimming pond for geese Practical Work By using guide sheet, guide the students to perform cleaning swimming pond for geese	• Select work tools, equipment, utensils and safety gears • Clean gees house • Disinfect gees house • Make swimming basins • Place feeders and drinkers in house • Handle incubating gees • Handle ducklings • Feed all stages gees • Provide vaccines, antibiotics and anthelmintic drugs • Perform all managerial practice	according to the required standards	Method used: The student should be able to explain how to rear gees Principles: The student should elucidate the principles related to rearing gees Theories: The student should : • Describe systems of rearing gees • Highlight the importance of gees farming • Identify types of gees • Differentiate between natural and artificial incubation • Enumerate brooding techniques • Explain ways of feeding different classes of gees	or training institution. The following tools, utensils, equipment and protective gears are to be available • Drinkers and feeders • Overalls • Gumboots • Masks • Examination gloves • Record book • Nest box • Egg trays • Pair of scissors • Buckets • Brooms • Spade	
	2.3 Rearing other domestic	(a) Rearing guinea fowls	Brainstorming: Guide the students to brainstorm on rearing guinea	The student should be able to: • Select work tools, equipment, utensils and safety gears	Guinea fowls are reared according to the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to highlight how to rear guinea fowls	This element can be achieved at a work place or training institution. The following tools, utensils equipment and	178

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
	poultry species		fowls Demonstration Demonstrate to the students how to treat sick guinea fowls Practical Work By using guide sheet, guide the students to treat sick guinea fowls	• Rear guinea fowls • Prepare laying nests • Prepare house • Prepare feeds • Clean coop • Handle guinea fowls • Control diseases • Clean tools, equipment used and work place • Store tools and equipment		Principles: The student should state the principles related to rearing guinea fowl Theories: The student should : • Describe systems of rearing guinea fowls, • Recognize incubation periods of various poultry species • Identify brooding technique • Explain how to perform different managerial practices • Describe different ways of keeping records	protective gears should be available: • Buckets • Brooms • Spades • Rakes • Hoes • Wheel barrows • Brooder guards • Drinkers and feeders • Overalls • Gumboots • Record books • Nesting boxes • Egg trays	
		Rearing pigeons	Brainstorming: Guide the students to brainstorm on the meaning of rearing pigeons Demonstration Demonstrate to	The student should be able to: • Select work tools, equipment, utensils and safety gears • Rear pigeons • Prepare laying nests • Prepare house • Prepare feeds	Pigeons are reared according to the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to rear pigeons Principles: The student should explain principles related to rearing pigeon Theories: The student	This element can be achieved at a work place or training institution. The following tools, utensils equipment and protective gears are to be available: • Buckets • Brooms	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
			the students how to perform fumigation of pigeon cages Practical Work By using guide sheet, guide the students to perform fumigation of pigeon cages	• Clean coop • Handle pigeons • Control diseases • Clean tools, equipment used and work place • Store tools and equipment		should : • Describe systems of rearing pigeons • Recognize incubation periods of various poultry species • Enumerate brooding techniques • Explain how to perform different managerial practices • Highlight different ways of keeping records	• Spades • Rakes • Hoes • Wheel barrows • Brooder guards • Drinkers and feeders • Overalls • Gumboots • Record books • Nesting boxes • Egg trays	

16.0. Form Two

Table 4: Detailed Contents for Form Two

Module Title (Main Competence)	Unit Title (Specific Competence s)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirement s/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
1.0 Rearing domestic animals	1.1 Rearing ruminants	(a) Rearing dairy cattle	Brainstorming: Guide the students to brainstorm on rearing dairy cattle Demonstration Demonstrate to the students how to performing hand and machine milking Practical Work By using guide sheet, guide the students to perform hand and machine milking	The student should be able to • Select work tools, equipment, utensils and safety gears • House different classes and types of ruminants • Clean ruminants' sheds • Disinfect ruminants' sheds • Feed different types and categories of ruminants • Fatten different types of ruminants • Feed dairy cattle different types of feeds • Apply acaricides and anthelmintic in dairy animals	Ruminants reared according to the recommended animal husbandry practices.	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to elucidate how to rear dairy cattle Principles: The student should elaborate the principles related to rearing of dairy cattle Theories: The student should: • Highlight the importance of dairy cattle • List down factors affecting dairy industry • Identify different ways of housing dairy cattle • Describe restraining methods • Enumerate	This element can be achieved at a workplace or training institution. The following tools, utensils equipment and protective gears are to be available: • Buckets • Brooms • Spades • Rakes • Wheel barrows • Spray pumps • Weighing band • Masks • Overalls • Gumboots	299

Module Title (Main Competence)	Unit Title (Specific Competence s)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirement s/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
				• Milk dairy animals and handle milk • Weigh live ruminants • Restrain different classes and types of ruminants • Dispose waste products • Identify sick animals • Keep different farm records • Clean tools, equipment and work places • Store work tools, equipment and gears		procedures of hand and machine milking • Elaborate different ways of performing managerial practices • Present different ways of controlling parasites • Identify farm structures found in dairy cattle farm Circumstantial knowledge: Detailed knowledge about • Safety precautions involved in handling disinfectants and acaricides • Carefully observation of drug withdraw period	• Examination gloves • Record books • Strip cup • Milking • Milk sieve/filter • Milk cans • Hoof trimmer • Disbudding iron • Ear tag applicator • Branding iron • Restraints • Drenching gun • buckets	
		(b) Rearing beef cattle	Brainstorming: Guide the students to brainstorm on rearing beef cattle Demonstration Demonstrate to	The student should be able to: • Select work tools, equipment, utensils and safety gears • House different classes and types	Beef cattle reared according to the recommended animal husbandry	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to rear beef cattle Principles: The student	This element can be achieved at a work place or training institution. The following tools, utensils	

Module Title (Main Competence)	Unit Title (Specific Competence s)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirement s/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
			students how to preparing artificial colostrum Practical Work By using guide sheet, guide the students to prepare artificial colostrum	ruminants • Clean ruminants' sheds • Feed different types and categories of ruminants • Feed beef cattle different types of feeds • Disinfect ruminants' shed • Apply acaricides and anthelmintic drugs in beef cattle • Milk beef animals and handle milk • Weigh live ruminants • Restrain different classes and types of ruminants • Dispose waste products • Identify sick animals • Manage various managerial practices • Keep different farm records	practices.	should outline the principles related to rearing of beef cattle Theories: The student should explain: • Highlight the importance of beef cattle • Identify problems affecting beef industry in Tanzania • Describe systems of raising beef cattle • Identify breeds of beef cattle • Explain different ways of housing beef cattle • Elaborate how to feed different classes beef cattle • Describe grazing systems • Elucidate different ways of restraining different classes of beef cattle • Describe different ways of performing different	equipment and protective gears are to be available: • Buckets • Brooms • Spades • Rakes • Hoes • Wheel barrows • Spray pumps • Weighing scales and band • Overalls • Gumboots • Masks • Examination gloves • Record books • Strip cup • Milking buckets • Milk sieve/filter • Milk cans	

Module Title (Main Competence)	Unit Title (Specific Competence s)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirement s/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
				• Clean tools, equipment and work places • Store work tools, equipment and gears		management practice • Identify structures and facilities for beef cattle production • Enumerate techniques of grading and marketing of beef cattle • Highlight the importance of record keeping Circumstantial knowledge: Detailed knowledge about • Carefully observation of drug withdraw period • Safety precaution involved in restraining of ruminants	• Hoof trimmer • Disbudding iron • Ear tag applicator • Branding iron • Restraints • Drenching gun	
		(c) Rearing dairy Goat	Brainstorming: Guide the students to brainstorm on the concept of rearing dairy goat	The student should be able to: • Select work tools, equipment, utensils and safety gears • House different classes and types of	Dairy goat reared according to the recommended animal husbandry	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to describe how to rear dairy goat Principles: The student	This element can be achieved at a work place or training institution. The following tools, utensils	

Module Title (Main Competence)	Unit Title (Specific Competence s)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirement s/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
			Demonstration Demonstrate to the students how to perform age estimation Practical Work By using guide sheet, guide the students to perform age estimation	ruminants • Clean ruminants' sheds • Feed different types and categories of ruminants • Fatten different types of ruminants • Feed goats different types of feeds • Weigh live ruminants • Restrain different classes and types of ruminants • Dispose waste products • Identify sick animals • Keep different farm records • Clean tools, equipment and work places • Store work tools, equipment and gears	practices.	should outline the principles related to rearing dairy goats Theories: The student should : • Explain the importance of dairy goat • Describe systems of raising dairy goats • Identify breeds of dairy goats • Describe proper ways of housing of dairy Goat • Elaborate different ways of feeding different classes of dairy goats • List down different Methods of restraining different classes dairy of goats • Explain how to perform different management practices Circumstantial knowledge: Detailed knowledge about	equipment and protective gear are to be available: • Buckets • Brooms • Spades • Rakes • Hoes • Wheel barrows • Spray pumps • Weighing band • Overalls • Gumboots • Masks • Examination gloves • Record books • Strip cup • Milking buckets • Milk sieve/filter • Milk cans • Hoof	

Module Title (Main Competence)	Unit Title (Specific Competence s)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirement s/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
						- Carefully observation of drug withdraw period - Safety precaution involved in restraining of ruminants	trimmer - Disbudding iron - Ear tag applicator - Branding iron - Restraints - Drenching gun	
		(d) Rearing goats for meat production .	Brainstorm Guide the students to brainstorm on the concept of rearing goats for meat production Demonstration Demonstrate to the students how to perform body weight estimation Practical Work By using guide sheet, guide the	The student should be able to: - Select work tools, equipment, utensils and safety gears - House different classes and types of ruminants - Clean ruminants' sheds - Feed different types and categories of ruminants - Feed goats different types of feeds - Disinfect ruminants' sheds	Goats for meat production reared according to the recommended animal husbandry practices.	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to rear goats for meat production Principles: The student should state the principles related to rearing goats for meat production. Theories: The student should : - Explain the importance of keeping goats for meat production - Describe systems of	This element can be achieved at a work place or training institution. The following tools, utensils equipment and protective gears are to be available: - Buckets - Brooms - Spades - Rakes - Hoes - Wheel barrows	

Module Title (Main Competence)	Unit Title (Specific Competence s)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirement s/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
			students to perform hoof trimming.	• Apply acaricides and anthelmintic drugs in meat goat • Weigh live ruminants • Restrain different classes and types of ruminants • Dispose waste products • Identify sick animals • Keep different farm records • Clean tools, equipment and work places • Store work tools, equipment and gears		keeping goats for meat production • Identify breeds of goats for meat for production • Elaborate requirements for housing goats • Clarify different ways of feeding different classes of goat's meat for production • Method of restraining different classes goat's meat for production • Performing different management practice	• Spray pumps • Weighing scales and band • Overalls • Gumboots • Masks • Examination gloves • Record books • Hoof trimmer • Disbudding iron • Ear tag applicator • Restraints • Drenching gun	
		(e) Rearing sheep	Brainstorming: Guide the students to brainstorm rearing of sheep	The student should be able to • Select work tools, equipment, utensils and safety gears • House different	Sheep reared according to the recommended animal husbandry practices.	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to rear sheep Principles: The student	This element can be achieved at a work place or training institution. The following tools, utensils	

Module Title (Main Competence)	Unit Title (Specific Competence s)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirement s/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
			Demonstration Demonstrate to the students how to perform tail docking Practical Work By using guide sheet, guide the students to perform tail docking	classes and types ruminants • Clean ruminants' sheds • Feed different types and categories of ruminants • Feed sheep different types of feeds • Disinfect ruminants' shed • Apply acaricides and anthelmintic in sheep • Weigh live ruminants • Restrain different classes and types of ruminants • Dispose waste products • Identify sick animals • Keep different farm records • Clean tools, equipment and work places • Store work tools, equipment and		should state the principles related rearing sheep Theories: The students should : • Describe the importance of sheep • Identify breeds of sheep • Explain the system of keeping sheep • Enumerate requirements for proper management of different classes of sheep • Elaborate proper ways of housing sheep • Describe different ways of feeding different classes of sheep • Outline methods of restraining different sheep • Explain how to perform different management practices •	equipment and protective gears are to be available: • Buckets • Brooms • Spades • Rakes • Hoes • Wheel barrows • Spray pumps • Weighing band • Overalls • Gumboots • gloves • Record books • Hoof trimmer • Disbudding iron • Ear tag applicator • Restraints • Drenching gun	

Module Title (Main Competence)	Unit Title (Specific Competence s)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirement s/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
				gears				
	1.2. Rearing non-ruminants	(a) Rearing pigs	Questions and answers Guide the students through questions to define pig, piglet, sow and boar Demonstration Demonstrate to the students how to perform teeth clipping Practical Work By using guide sheet, guide the students to perform teeth clipping, inject iron and castrate.	The student should be able to: • Select work tools, equipment, utensils and safety gears • House pig • Clean non – ruminants’ sheds • Feed non – ruminants of different types and categories • Fatten growers • Apply acaricides and anthelmintic • Restrain different types of non - ruminants • Dispose waste products • Identify sick animals • Flush sows • Perform creep feeding • Identify methods of non –ruminants	Pigs are reared according to the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to rear pigs Principles: The student should explain the principles related to rearing pigs Theories: The student should : • Highlight the importance of pig rearing • Outline the factors hindering pig industry • Identify breeds of pigs • Describe systems of keeping pigs • Elaborate the proper ways of housing pigs • Explain ways of feeding different classes of pig • Outline Methods of	This element can be achieved at a work place or training institution. The following tools, utensils equipment and protective gears are to be available: • Buckets • Brooms • Spade • Rakes • Wheel barrows • Spray pumps • Overalls • Gumboots • Antibiotics • Examination gloves • Surgical kit • Different gauge of	180

Module Title (Main Competence)	Unit Title (Specific Competence s)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirement s/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
				- Keep different farm records - Clean tools, equipment and work places - Store working tools, equipment and gears		restraining different pigs - Clarify how to Perform different management practices - Elaborate how to perform different managerial practices - Describe proper waste disposal of farm effluents Circumstantial knowledge: Detailed knowledge about - Religious regulations	hypodermic needle - Automatic Syringe - Disposable Syringe - Sterile Gloves - Pig Snare - Teeth clipper - Feed materials	
		(b) Rearing rabbits	Brainstorming: Guide the students to brainstorm on meaning of rearing rabbits Demonstration Demonstrate to students how to perform urine collection	The student should be able to: - Select work tools, equipment, utensils and safety gears - House non - ruminants - Clean non – ruminants’ sheds - Feed non – ruminants of different types and	Rabbit reared according to the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to rear rabbit Principles: The student should outline the principles related to rearing rabbits Theories: The student should :	This element can be achieved at a work place or training institution. The following tools, utensils equipment and protective gear are to be available: Buckets	

Module Title (Main Competence)	Unit Title (Specific Competence s)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirement s/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
			Practical Work By using guide sheet, guide students to perform urine collection.	categories • Apply anthelmintic • Restrain different types of non - ruminants • Dispose waste products • Identify sick animal • Keep different farm record • Clean tools, equipment and work places • Store work tools, equipment and gears		• Highlight the importance of rabbit production • Outline the challenges of keeping rabbits • Identify the common breeds of rabbits • Explain how to breed the Rabbits • Describe rabbit sexing • Describe systems of keeping rabbit • Outline the proper ways of housing rabbits • Explain the proper ways of feeding of rabbits • Elaborate how to perform routine control of parasites • Enumerate restraining methods of rabbit • Describe the importance of record keeping • Explain proper waste	• Brooms • Spade • Wheel barrows • Weighing scales • Overalls • Gumboots • Antibiotics • Surgical kit • Disposable Syringe • Sterile Gloves • Feed materials	

Module Title (Main Competence)	Unit Title (Specific Competence s)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirement s/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
						disposal of farm influents • Outline identification methods		
		(c) Rearing guinea pigs	Brainstorming: Guide the students through brainstorming on rearing guinea pigs Demonstration Demonstrate to students how to perform iron injection Practical Work By using guide sheet, guide students to perform iron injection	The student should be able to: • Select work tools, equipment, utensils and safety gears • House non - ruminants • Clean non – ruminants’ sheds • Feed non – ruminants of different types and categories • Apply anthelmintic • Restrain different types of non - ruminants • Dispose waste products • Identify sick animal • Keep different farm records • Clean tools, equipment and work	Guinea pigs are reared according to the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to rear guinea pigs Principles: The student should state the principles related to rearing guinea pigs Theories: The student should : • Highlight the importance of keeping guinea pigs • Describe the characteristics of guinea pigs • Identify different breeds of guinea pigs • Describe systems of raising guinea pigs • Describe proper ways of housing guinea	This element can be achieved at a work place or training institution. The following tools, utensils equipment and protective gears are to be available: • Buckets • Brooms • Spade • Overalls • Gumboots • Antibiotics • Masks • Examination gloves • Surgical kit • Disposable syringe	

Module Title (Main Competence)	Unit Title (Specific Competence s)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirement s/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
				places		pigs • Elaborate proper ways of feeding guinea pigs • Explain the importance of record keeping • Present identification methods of non – ruminants.		
	1.3 Rearing working animals	(a) Rearing oxen	Brainstorming: Guide students to brainstorm on rearing oxen Demonstration Demonstrate to the students how to perform harnessing of oxen Practical Work By using guide sheet, guide the students to perform harness oxen	The student should be able to: • Select work tools, equipment, utensils and safety gears • Fabricate harnessing tools and equipment • House work animals • Clean working anima's' shed • Feed different classes and types of working animals • Restrain different classes and types of working animals • Harness different types of working animals • Train different types	Working animals are reared and perform work according to the set standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to rear oxen Principles: The student should describe the principles related to rearing oxen Theories: The student should : • Elaborate the economic benefits of rearing and using oxen • Outline the disadvantages of rearing oxen • Identify the criteria for selecting oxen	This element can be achieved at a work place or training institution. The following tools, utensils equipment and protective gears are to be available: • Buckets • Brooms • Spades • Plough, ridger, planter, harrow and weeder • Whips	120

Module Title (Main Competence)	Unit Title (Specific Competence s)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirement s/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
				of working animals - Keep different records - Clean tools, equipment and work places - Store work tools equipment and gears		- Explain proper ways of housing oxen - Describe how to make yoke - List down harnessing tools - Explain how to perform managerial practices - Enumerate the importance of record keeping Circumstantial knowledge: Detailed knowledge about - Observation safety precaution working	- Chains - Ox carts - Tool boxes - weigh bands - Overalls - Gumboots - Masks - Examination gloves - Hoof trimmer - Ear tag - applicator - Restraining rope - Drenching gun - Bits - York and skey	
		(b) Rearing donkeys	Brainstorming: Guide the students to brainstorm on the concept of rearing donkey Demonstration	The student should be able to: - Select work tools, equipment, utensils and safety gears - Fabricate harnessing tools and equipment - House work animals	Donkey reared and perform work according to the set standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to elaborate how to rear donkeys Principles: The	- This element can be achieved at a work place or training institution. - The following	

Module Title (Main Competence)	Unit Title (Specific Competence s)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirement s/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
			Demonstrate to the students how to perform pulling carts by donkeys Practical Work By using guide sheet, guide the students to perform pulling carts by donkeys	• Clean working animals' sheds • Feed different classes and types of working animals • Restrain different classes and types of working animals • Harness different types of working animals • Train different types of working animals • Keep different records • Clean tools, equipment and work places • Store work tools, equipment and gears		student should explain principles related to rearing of donkeys Theories: The student should explain: • Describe the general characteristics of donkeys • Outline the factors affecting working of donkeys • Explain how to harness donkeys • Describe the proper ways of housing working animals • Enumerate measures required to control parasites • Elaborate ways to Identify working animals Circumstantial knowledge: Detailed knowledge about • Observation safety precaution during	tools, utensils equipment and protective gears are to be available: • Buckets • Brooms • Spades • Plough, ridger, planter, harrow and weeder • Whips • Chains • Ox carts • Tool boxes • weigh bands • Overalls • Gumboots • Masks • Examination gloves • Record book • Hoof trimmer • Ear tag	

Module Title (Main Competence)	Unit Title (Specific Competence s)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirement s/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
						working	applicator • Restraining rope • Drenching • Saddle • Breast bands • Bits • York and skey	
2.0 Performing apiculture	2.1 Managing beehives and apiary	(a) Making bee hives	Brainstorming: Guide the students to brainstorm on making be hive Demonstration Demonstrate to the students how to make beehive Practical Work By using guide sheet, guide the students to make beehive	The student should be able to: • Select work equipment, tools, utensils and safety gears • Identify types of bee hives • Fabricate beehives • Keep different records • Clean tools, equipment used and workplace	Fabricated beehive produced according to the set standards of bee keeping	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to make beehive Principles: The student should state the principles related to making bee hive Theories: The student should : • Highlight the importance of bee hive • Identify types of bee hive • List down materials required to fabricate	This element can be achieved at a work place or training institution. The following equipment, tools, utensils and protective gears should be available: • Timber • Saw • Hammer • Nail • Tape measure • Overall • Safety boot	321

Module Title (Main Competence)	Unit Title (Specific Competence s)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirement s/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
						beehive - Outline the components of beehive - Elaborate how to design and fabricate beehives Circumstantial knowledge: Detailed knowledge about - Environmental conservation in relation to bee keeping		
		(b) Managing beehives	Brainstorming: Guide the students to brainstorm on managing beehive Demonstration Demonstrate to the students how to inspect beehive Practical Work By using guide sheet, guide	The student should be able to: - Select work equipment, tools, utensils and safety gears - Feed bees during dry season - Control vermin, pest and diseases in bees - Keep different records - Clean tools, equipment used and	Beehive managed according to the set standards of Beekeeping.	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to manage beehives Principles: The student should describe principles involved in managing beehives Theories: The student should : Explain the economic importance of	This element can be achieved at a work place or training institution. The following equipment, tools, utensils and protective gears should be available: - Bee hives - Smokers - Bee	

Module Title (Main Competence)	Unit Title (Specific Competence s)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirement s/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
			students to inspect bee hive	work place Store tools and equipment		managing beehive - Elaborate how to perform managerial practices in managing beehive - Outline the rules for beehive inspection	- Bush knives - Hoes - Protective cloth	
		(c) Managing an apiary	Brainstorming: Guide the students to brainstorm on managing apiary Demonstration Demonstrate to students how to set beehive and biting of bee hive Practical Work By using guide sheet, guide the students to set beehive and bit bee	The student should be able to: - Select work equipment, tools, utensils and safety gears - Select suitable area for apiary establishment - Clear apiary environment - Introduce bee in the hives - Manage apiary - Develop and conserve water catchment area in the apiary - Control bush fire - Control vermin, pests and diseases in	Apiary management are performed according to the set standards of Bee keeping.	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to manage an apiary Principles: The student should state the principles involved in managing an apiary Theories: The student should : - Identify types of bees - Explain the importance of bee keeping - Describe systems used in bee keeping - List down types of apiary - Enumerate factors to	This element can be achieved at a work place or training institution. The following equipment, tools, utensils and protective gears are to be available: - Bee hives - Bucket - Wheel barrows - Smokers - Bee - protective cloth - Brushes - Grippers	

Module Title (Main Competence)	Unit Title (Specific Competence s)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirement s/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
				bees		consider for selection of suitable area for apiary - Outline the factors for establishment of apiary - Elaborate how to manage apiary in different season - Explain biting of bees Circumstantial knowledge: Detailed knowledge about - Environmental conservation in relation to bee keeping	- Bush knives - Hoes - Record books	
		(d) Performing grafting	Brainstorming: Guide the students to brainstorm on performing grafting Demonstration Demonstrate to the students how to	The student should be able to: - Select work equipment, tools, utensils and safety gears - Perform grafting - Keep different records - Clean tools,	Grafting is performed according to the set standards of Bee keeping.	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to elaborate how to perform grafting Principles: The student should describe the principles involved in grafting	This element can be achieved at a work place or training institution. The following equipment, tools, and protective gears are to be	

Module Title (Main Competence)	Unit Title (Specific Competence s)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirement s/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
			perform grafting Practical Work By using guide sheet, guide the students to perform grafting	equipment used and workplace • Store tools and equipment		Theories: The student should e: • Explain the significance and functions of queen bee • Highlight the importance of grafting • Outline the procedure or steps for grafting Circumstantial knowledge: Detailed knowledge about • Environmental conservation rules and regulations	available: • Smokers Bee • protective cloth Brushes • grafting tool • cell cups • damp towel • light source	
		(e) Harvesting honey	Brainstorming: Guide the students to brainstorm on harvesting honey Demonstration Demonstrate to the students how to harvest honey	The student should be able to: • Select work equipment, tools, utensils and safety gears • Harvest honey • Keep different records • Clean tools, equipment used and	Honey harvesting performed according to the set standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to harvest honey. Principles: The student should state the principles involved in harvesting honey Theories: The student	This element can be achieved at a work place or training institution. The following equipment, tools, and protective gears are to be available:	

Module Title (Main Competence)	Unit Title (Specific Competence s)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirement s/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
			Practical Work By using guide sheet, guide the students to harvest honey	workplace Store tools and equipment		should : - Outline procedure for harvesting and extracting honey - Highlight the importance of record keeping Circumstantial knowledge: Detailed knowledge about - Environmental conservation rules and regulations	- Beehives - Bucket - Smokers - Bee protective cloth - Honey extractors - Honey pressers - Uncapping knives - Honey filter	
		(f) Extracting pollen and royal jelly	Brainstorming: Guide the students to brainstorm on extracting pollen and royal jelly Demonstration Demonstrate to students how to extracting pollen and royal jelly	The student should be able to: - Select work equipment, tools, utensils and safety gears - Extract pollen - Extract royal jelly - Keep different records - Clean tools, equipment used and workplace - Store tools and equipment	Extraction of pollen and royal jelly performed according to the set standards of harvesting bee products	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to extract pollen and royal jelly Principles: The student should describe the principles involved in extract pollen and royal jelly Theories: The student should : Outline the benefits of pollen and its	This element can be achieved at a work place or training institution. The following equipment, tools, and protective gears are to be available: - Frame grippers - Pollen traps - Wasp traps	

Module Title (Main Competence)	Unit Title (Specific Competence s)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirement s/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
			Practical Work By using guide sheet, guide the students to perform extracting pollen and royal jelly			considerations - List the methods for harvesting pollen - Enumerate the procedures for harvesting pollen from honey beehives - Important uses of royal jelly - Methods of harvesting royal jelly - Procedure for harvesting royal jelly Circumstantial knowledge: Detailed knowledge about - Environmental conservation in relation to bee keeping	- tray beneath the trap. - Light bulb - Freezer - Vacuum pump - queen cells - Vacuum devices or syringes - Smoker	
	2.2 Processing bee products	(a) Extracting bee venom	Brainstorming: Guide the students to brainstorm on extracting bee venom	The student should be able to: - Select work equipment, tools, utensils and safety gears - Extract bee venom	Bee venom extract performed according to the set standards of bee keeping	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to elaborate how to extract bee venom Principle: The student	This element can be achieved at a work place or training institution. The following equipment,	160

Module Title (Main Competence)	Unit Title (Specific Competence s)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirement s/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
			Demonstration Demonstrate to the students how to extract bee venom Practical Work By using guide sheet, guide the students to perform extracting bee venom	• Keep different records • Clean tools, equipment used and workplace • Store tools and equipment		should state the principles involved in extracting bee venom Theories: The student should : • Explain the important uses of bee venom • Describe bee venom processing and storage	tools, and protective gears are to be available: • Scraper • Electrical stimulation device • spatulas	
		(b) Making wax	Group discussion: Guide the students in manageable groups to discuss and come up with the meaning of making wax Demonstration Demonstrate to students how to make wax	The student should be able to: • Select work equipment, tools, utensils and safety gears • Process wax • Make candles • Keep different records • Clean tools, equipment used and workplace • Store tools and equipment	Bee wax processing performed according to the set standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to make bee wax Principle: The student should explain principles involved in making bee wax Theories: The student should : • Describe the functions of honey comb	This element can be achieved at a work place or training institution. The following equipment, tools, and protective gears are to be available: • Double boiler • stirring utensil	

Module Title (Main Competence)	Unit Title (Specific Competence s)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirement s/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge Assessment		
			Practical Work By using guide sheet, guide the students to make bee wax			• Outline the methods of collecting honeycombs for beeswax • Outline methods of making beeswax • Present procedures for making beeswaxes • Explain the uses of beeswax	• Bucket • Honey comb • Towel • Thermometer • Mound • Gumboot	

17.0. Form Three

Table 5: Detailed Contents for Form Three

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
1.0 Performing fish farming	1.1 Performing fish pond farming	(a) Preparing different types of fish ponds	Brainstorming: Guide the students to brainstorm on the concept of preparing different types of fish ponds Demonstration Demonstrate to the students how to construct different types of fish pond Practical Work By using guide sheet, lead the students to construct different types of fish ponds	The student should be able to: • Select work equipment, tools, utensils and safety gears • Design different types of ponds • Make different types of ponds • Plant trees and grass around fish pond • Keep different records • Clean tools, equipment used and workplace • Store tools and equipment	Fish ponds prepared according to the required standards of fish farming in ponds	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to prepare fish pond. Principles: The student should describe the principles involved in preparing fish pond Theories: The student should : • Identify types of fish ponds • Explain the economic importance of fish pond farming • Outline the factors to consider before construction of fish ponds • Enumerate procedures of construction fish pond Circumstantial knowledge: • Detailed knowledge about • Precautions on environmental issues	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: • Spades • Rakes • Hoes • Wheel barrows • Water tanks • Buckets • Block • Cement • Sand • Tape measures • rope	48

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
		(b) Managing fish ponds	Brainstorming: Guide the students to brainstorm on the concept of managing fish ponds Demonstration Demonstrate to students how to treat water , Clean fish pond, and control predators and diseases Practical Work By using guide sheet, guide students to perform water treatment, clean fish pond, and control predators and disease	The student should be able to: • Select work equipment, tools, utensils and safety gears • Control pond water quality and level • Fertilize pond • Introduce fingerlings • Feed fish • Control diseases • Control predators • Identify sick fish • Keep different records	Fish ponds Managed according to the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to elaborate how to manage fish ponds. Principles: The student should outline the principles involved in managing fish ponds Theories: The student should : • Highlight the importance of managing fish ponds • Outline different ways of feeding fish • Explain how to manage water • Enumerate different ways of controlling predators • Highlight different ways of Controlling fish diseases	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: • Wheel barrows • Fishing nets • Water pumps • Water analysis kits • Overall • Gumboots • Masks • Record books • Bucket • Feeds • Hoe	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
		(c) Breeding fish	Group discussion: Guide the students in manageable groups, to elaborate fish breeding Demonstration Demonstrate to the students how to perform artificial fish breeding Practical Work By using guide sheet, lead the students to perform artificial fish breeding	The student should be able to: • Select work equipment, tools, utensils and safety gears • Perform breeding of fish • Observe methods of fish breeding • feed fish • Keep different records • Clean tools, equipment used and workplace • Store tools and equipment	Fish breeding in ponds performed according to the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to elaborate how to breed fish. Principles: The student should explain principles involved in breeding fish Theories: The student should : • Describe the advantages of breeding fish • Explain fertilization of fish pond • Elucidate water management Circumstantial knowledge: • Detailed knowledge about • Precautions on environmental issues	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: • Spades • Rakes • Hoes • Wheel barrows • Water tanks • Cages • Fishing nets • Water pumps • Record book	
		(d) Preparing fish feed	Brainstorming: Guide the students to brainstorm on	The student should be able to: • Select work equipment, tools,	Fish feeds are prepared according to the required	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to	This element can be achieved at a work place or training	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			preparing fish feeds Demonstration Demonstrate to the students how to formulate starter, grower and finisher fish feeds Practical Work By using guide sheet, lead the students to formulate starter, grower and finisher fish feeds	utensils and safety gears - Identify feeding materials - Methods of feed preparation - Identify types of feeds - Keep different records - Clean tools, equipment used and workplace - Store tools and equipment	standards of fish categories	explain how to prepare fish feed. Principles: The student should state the principles involved in preparing fish feed Theories: The student should: - Explain feed stuff - Identify factors to consider before feed formulation - Highlight the importance of formulating fish feeds Circumstantial knowledge: Detailed knowledge about - Precautions on environmental issues	institution. The following tools, equipment and protective gears are to be available: - Spades - Feed ingredients - Mixer machine - Milling machine - PPE - Mask - Packaging - Bucket - Record keeping	
	1.2 Perform smart technologies fish farming	(a) Performing aquarium fish farming	Brainstorming: Guide the students to brainstorm on performing aquarium fish farming	The student should be able to: - Select work equipment, tools, utensils and safety gears - Control quality	Aquarium fish farm performed according to the required standards of smart tank	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to elaborate how to perform aquarium fish farming Principles: The student	This element can be achieved at a work place or training institution. The following tools, equipment and	48

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				Process Assessment	Services Assessment	Knowledge		
			Demonstration Demonstrate to the students how to monitor water PH Practical Work By using guide sheet, lead the students to monitor water PH, and filtration	of water - Introduce fingerlings - Feed fish - Control diseases - Control predators - Identify sick fish - Keep different records - Clean tools, equipment used and workplace - Store tools and equipment	fish farming	should outline the principles involved in performing aquarium fish farming Theories: The student should : - Explain factors of consideration in establishing in aquarium fish farming - Elucidate the economic importance of aquarium fish farming	protective gears are to be available: - Buckets - Spades - Hoes - Wheel barrows - Water tanks - Fishing nets - cages - Water analysis kits - Overalls - Gumboots - Masks - Large /medium tank	
		(b) Performing aquaponics	Brainstorming: Guide the students to brainstorm on the concept of performing aquaponics Demonstration Demonstrate to the	The student should be able to: - Select work equipment, tools, utensils and safety gears - Control quality of water - Introduce fingerlings - Feed fish	Aquaponics performed according to the required standards of smart tank fish farming	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to perform aquaponics Principles: The student should describe the principles involved in performing aquaponics Theories: The student	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: Buckets	

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				Process Assessment	Services Assessment	Knowledge		
			student how to install water pumps and filtration Practical Work By using guide sheet, lead the students to install water pumps and filtration	- Control diseases - Control predators - Identify sick fish - Keep different records - Clean tools, equipment used and workplace - Store tools and equipment		should : - Elaborate how to manage aquaponics - Identify suitable plant for making aquaponics - Explain ornamental fish farming	- Spades - Rakes - Hoes - Wheel barrows - Water tanks - Fishing nets - cages - Water analysis kits - Overalls - Gumboots - Masks - Record books - Large /medium tank	
		(c) Performing fish tank farming	Brainstorming: Guide the students to brainstorm on the meaning of performing fish tank farming Demonstration Demonstrate to the students how to clean tank and	The student should be able to: - Select work equipment, tools, utensils and safety gears - Design different types of smart tanks - Make different types of smart tanks - Control quality	Fish tank farming performed according to the required standards.	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to perform fish tank farming Principles: The student should describe the principles involved in performing fish tank farming Theories: The student should :	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: - Buckets - Spades - Hoes	

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				Process Assessment	Services Assessment	Knowledge		
			maintenance Practical Work By using guide sheet, lead the students to clean and maintain tank	of water • Fertilize smart tank • Introduce fingerlings • Control diseases • Control predators • Grow plant around smart tank • Identify sick fish		• Outline the factors for consideration in establishing smart tank fish farming • Highlight the importance fish tank farming • Identify types of tank Circumstantial knowledge: Detailed knowledge about • Precautions on environmental issues	• Wheel barrows • Water tanks • Fishing nets • Water pumps • Overalls • Gumboots • Masks • Record books • Large /medium tank	
		(d) Feeding fish in cages	Brainstorming: Guide the students to brainstorm on feeding fish in cages Demonstration Demonstrate to student how to feeding fish in cages Practical Work By using guide	The students should be able to: • Select work equipment, tools, utensils and safety gears • Feed fish • Keep different records • Clean tools, equipment used and work place • Store tools and equipment	Feeding fish in cage performed according to the required standards of ratio.	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to feed fish in cages Principles: The student should outline principles involved in feeding fish in cages Theories: The student should explain: • Types of feed Circumstantial	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: • Buckets • Spades • Wheel barrows • Overalls	

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				Process Assessment	Services Assessment	Knowledge		
			sheet, lead the students to feed fish in cages			knowledge: Detailed knowledge about Precautions in selection of feeds as looted materials are not recommended	- Gumboots - Masks - Record books - Weigh balance - Fish cage - Fish feed	
	1.3 Performing lake fish farming	(a) Designing different types of fish cage	Think-ink-pair-share: Guide the students through think-ink-pair-share method to explain different types of fish cages Demonstration Demonstrate to student how to fabricating different types of fish cages Practical Work By using guide sheet, lead the students to fabricate	The students should be able to: - Select work equipment, tools, utensils and safety gears - Design different types of cages - Fabricate cages - Keep different records - Clean tools, equipment used and workplace - Store tools and equipment	Designing and fabrication of fish cage performed according to the required standards of fish farming in lakes	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to design fish cage Principles: The student should outline principles involved in Designing different types of fish cage. Theories: The student should : - Outline the types of fish cages - Elaborate factors to consider before designing fish cage - Identify types of materials used for fabrication of fish	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: - Buckets - Wheel barrows - Cages - Fishing nets - Overalls - Gumboots - Masks - Record books - Fishing hooks - Strings	36

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			different types of fish cages			cage Circumstantial knowledge: Detailed knowledge about • Precautions on environmental issues • Skills of swimming		
		(b)Managing fish cages	Group discussion: Guide the students to brainstorm on managing fish cages Demonstration Demonstrate to the students how to set and install of cage Practical Work By using guide sheet, lead the students to perform setting and installation of cage	The students should be able to: • Select work equipment, tools, utensils and safety gears Feed fish • Control diseases • Control predators • Identify sick fish • Keep different records • Clean tools, equipment used and workplace • Store tools and equipment's	Managing fish cages performed according to the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to manage fish cages Principles: The student should state principles involved in managing fish cages Theories: The student should : • Elaborate how to perform water quality management • Explain how to control of diseases • Identify proper means of controlling predators	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: • Cages • Fishing nets • Boats • Overalls • Gumboots • Masks • Record books • Fishing hooks • Strings/ropes for fishing	

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				Process Assessment	Services Assessment	Knowledge		
						Circumstantial knowledge: Detailed knowledge about • Precautions on environmental issues • Skills of swimming	• Buckets	
		(c) Conserving lake environments	Brainstorming: Guide the students to brainstorm on conserving lake environments Demonstration Demonstrate to the student how to prevent pollution and manage waste Practical Work Guide the students to prevent pollution and manage waste	The student should be able to: • Select work equipment, tools, utensils and safety gears • Feed fish • Conserve fish farming environment • Keep different records • Clean tools, equipment used and work place • Store tools and equipment	Conserving lake environments performed according to the required standards and environmental rules and regulations	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to elaborate how to conserve lake environments Principles: The student should explain principles involved in conserving lake environments. Theories: The student should : • Explain water management • Define environment conservation Circumstantial knowledge: Detailed knowledge about	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: • Buckets • Spades • Rakes • Hoes • Wheel barrows • Boats • Overalls • Gumboots • Masks	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
						Precautions on environmental issues		
	1.4 Performing marine farming	Performing crab farming	Group discussion: Guide students in manageable groups to elaborate performing crab farming Demonstration Demonstrate to student how to perform stocking crabs and harvesting Practical Work By using guide sheet guide the students to perform crab stocking and harvest	The student should be able to: - Select work equipment, tools, utensils and safety gears - Design different types of cages - Fabricate cages - Feed crab - Perform crab farming - Control diseases - Control predators - Identify sick crabs - Keep different records - Clean tools, equipment used and workplace - Store tools and equipment	Crab farming performed according to the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to elaborate how to perform crab farming Principles: The student should state principles involved in Performing crab farming Theories: The student should : - Outline the advantages of performing crab farming - Distinguish types of crabs - Explain how to control diseases and predators Circumstantial knowledge: Detailed knowledge about - Precautions on environmental issues	This element can be achieved at a workplace or training institution. The following tools, equipment and protective gears should be available: - Buckets - Cages - Fishing nets - Overalls - Gumboots - Masks - Weighing scales - Record books - Fishing hooks	48

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
		Performing shrimp farming	Brainstorming: Guide the students to brainstorm on the concept of shrimp farming Demonstration Demonstrate to the students how to stock and harvest shrimp Practical Work By using guide sheet guide the students to stock and harvest shrimps	The students should be able to: • Select work equipment, tools, utensils and safety gears • Design different types of cages • Fabricate cages • Feed shrimps • Perform shrimps farming • Control diseases • Control predators • Identify sick shrimps • Keep different records • Clean tools, equipment used and work place • Store tools and equipment	Shrimp farming performed according to the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to perform shrimp farming Principles: The student should explain principles involved in performing shrimp farming Theories: The student should : • Explain the importance of shrimp farming • Elaborate how to Manage shrimp farming • Elucidate how to control of predators • Define water management circumstantial knowledge: Detailed knowledge about • Precautions on environmental issues	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears should be available: • Buckets • Rakes • Cages • Fishing nets • Overalls • Gumboots • Masks • Weighing scales • Record books	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
						Skills of swimming		
		Performing salmons farming	Group discussion: Guide the students in manageable groups to discuss and come up with the meaning of salmon farming Demonstration Demonstrate to the students how to stock and harvest salmon Practical Work By using guide sheet guide, the students to stock and harvest salmon	The student should be able to: - Select work equipment, tools, utensils and safety gears - Design different types of cages - Fabricate cages - Feed fish - Perform salmon farming - Control predators - Identify sick fish - Keep different records - Clean tools, equipment used and workplace - Store tools and equipment	Salmon farming performed according to the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to perform salmons farming Principles: The student should elaborate principles involved in performing salmons farming Theories: The student should : - Explain the importance of salmon farming - Elaborate proper ways of managing salmon farming - Outline proper measures for controlling predators and diseases circumstantial knowledge: Detailed knowledge about	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: - Buckets - Rakes - Cages - Fishing nets - Overalls - Gumboots - Masks - Weighing scales - feeds - Record books	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
						- Precautions on environmental issues - Skills of swimming		
		(d) Performing seaweed and cucumber farming	Brainstorming: Guide students to brainstorm on performing seaweed and cucumber farming Demonstration Demonstrate to the students how to collect seed or cultivate and attach to growth structures Practical Work Guide the students to collect seed or cultivate and attach to growth structures	The student should be able to: - Select work equipment, tools, utensils and safety gears - Design different types of cages - Perform seaweed farming - Perform cucumber farming - Maintain sea shore environment - Control diseases - Control predators	Sea weed and cucumber farming performed according to the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to perform seaweed and cucumber farming Principles: The student should outline principles involved in performing seaweed and cucumber farming Theories: The student should : - Highlight the importance of sea weed and cucumber farming - Define cucumber - Enumerate the proper ways of Controlling weeds and pillage of unwanted wastes Circumstantial knowledge:	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: - Buckets - Rakes - Rake - Spade - Hoe - Fishing nets - Overalls - Gumboots - Masks - Weighing scales - Record books	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
						Detailed knowledge about • Precautions on environmental issues • Skills of swimming		
	1.5 Harvesting and preserving fish	(a) Harvesting fish	Brainstorming: Guide the students to brainstorm on harvesting fish Demonstration Demonstrate to student how to harvesting fish Practical Work By using guide sheet guide the students to harvest fish	The student should be able to: • Select work equipment, tools, utensils and safety gears • Harvest fish in ponds, lake and marine farms • Keep different records • Clean tools, equipment used and work place • Store tools and equipment	Fish harvesting performed according to the set standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to harvest fish. Principles: The student should outline principles involved in harvesting fish. Theories: The student should : • Describe the factors to consider before harvesting fish	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: • Buckets • Fishing net • Overall • Gumboots • Masks • Weighing scale • Record book • Fishing hook • String/rope for fishing	72

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
		(b) Smoking fish	Brainstorming: Guide the students to brainstorm on smoking fish Demonstration Demonstrate to the students how to smoke fish Practical Work By using guide sheet guide the students to smoke fish	The student should be able to: • Select work equipment, tools, utensils and safety gears • Prepare smoked fish • Keep different records • Clean tools, equipment used and work place • Store tools and equipment	Fish processing through smoking performed according to the set standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to preserve fish. Principles: The student should state principles involved in smoking fish. Theories: The student should : • Elaborate how to smoke fish • Explain proper ways of packaging fish	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: • Buckets • Spade • Rake • Charcoal • Table • Knife • Bush knife • Fish	
		(c) Salting Fish	Group discussion: Guide the students in manageable groups to discuss and come up with the meaning of salting fish Demonstration	The student should be able to: • Select work equipment, tools, utensils and safety gears • Prepare salted fish • Keep different records • Clean tools,	Fish processing through salting performed according to the set standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to preserve fish. Principles: The student should outline principles involved in salting of fish Theories: The student should :	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: • Buckets	

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			Demonstrate to the students how to salt fish Practical Work By using guide sheet, guide the students to perform fish salting	equipment used and work place • Store tools and equipment		• Elaborate the advantages of salting fish • Outline the procedures of salting fish • Enumerate procedures for packaging fish • Highlight the proper ways of fish storage Circumstantial knowledge: Detailed knowledge about • Market preferences on processed fish	• Spade • Rake • Salt • Table • Knife • Bush knife • Fish	
		(d) Freezing fish	Brainstorming: Guide the students to brainstorm the meaning of freezing fish Demonstration Demonstrate to the students how to freeze fish	The student should be able to: • Select work equipment, tools, utensils and safety gears • Freeze fish • Keep different records • Clean tools, equipment used and work place • Store tools and	Fish processing through freezing performed according to the set standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to preserve fish. Principles: The student should elaborate principles involved in freezing fish Theories: The student should : • Highlight the	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: • Buckets • Table • Knife	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
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			Practical Work By using guide sheet guide the students to perform fish freezing	equipment		importance of Freezing or spicing fish - Outline the factors to consider before freezing fish - List down the steps for freezing fish Circumstantial knowledge: Detailed knowledge about - Market preferences on processed fish	- Bush knife - Packaging bags - Dip freezer - Fish	
		(e) Preparing sun dried fish	Brainstorming: Guide the students to brainstorm on preparing sun drying fish Demonstration Demonstrate to the students how to dry fish by sun Practical Work	The student should be able to: - Select work equipment, tools, utensils and safety gears - Dry fish by sun - Keep different records - Clean tools, equipment used and workplace - Store tools and equipment	Fish processing through sun drying performed according to the set standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to elaborate how to preserve fish. Principles: The student should state the principles involved in preparing sun dried fish. Theories: The student should : Highlight the economic importance	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears to be available: - Buckets - Table - Knife - Bush knife	

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				Process Assessment	Services Assessment	Knowledge		
			By using guide sheet, guide the students to perform sun fish drying			of drying fish by sun - Elaborate ways of packaging fish - Elucidate ways of fish storage Circumstantial knowledge: Detailed knowledge about: - Market preferences	- Packaging bags - Wire mash - Fish	
		(f) Fermenting fish	Brainstorming: Guide the students to brainstorm to the meaning of fermenting fish Demonstration Demonstrate to the students how to ferment fish Practical Work By using guide sheet, lead the students to ferment fish	The student should be able to: - Select work equipment, tools, utensils and safety gears - Ferment fish - Keep different records - Clean tools, equipment used and workplace - Store tools and equipment	Fish processing through Fermenting performed according to the set standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to preserve fish. Principles: The student should state principles involved in fermenting fish. Theories: The student should: - Explain the importance of fermenting fish - Enumerate different ways of packaging fish - Clarify ways of fish	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: - Buckets - Table - Knife - Bush knife - Packaging bags - Wire mash - Fish	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			:			storage - Elaborate the importance of keeping records Circumstantial knowledge: Detailed knowledge about - Market preferences on processed fish		
	1.6 Controlling quality of fish	(a) Performing organoleptic test	Brainstorming: Guide the students to brainstorm on performing organoleptic test Demonstration Demonstrate to student how to visualizing, Smelling and tasting Practical Work By using guide sheets lead the students to perform	The student should be able to: - Select work tools and safety gears - Perform organoleptic test - Keep different records - Clean tools, equipment used and work place - Store tools and equipment	Fish products quality maintained according to the set standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to perform organoleptic test Principles: The student should describe principles involved in performing organoleptic test Theories: The student should explain: - Outline the predisposing factors for fish spoilage - Describe the	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: - Markers - White coats - Apron - pH meters - Industrial cape - Overalls - Gumboots - Masks	36

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			visual, smell and taste inspection			characteristic features of spoiled fish • Highlight the importance of keeping records	- Record books - Weighing scales - Weighing bridge	
		(b) Inspecting fish products	Brainstorming: Guide the students to brainstorm on inspecting fish products Demonstration Demonstrate to the students how to visualize, smell and spoil aging features Practical Work Guide students to visual, smell and spoilage features	The student should be able to: - Select work tools and safety gears - Inspect fish products - Keep different records - Clean tools, equipment used and workplace - Store tools and equipment	Fish products quality maintained according to the set standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to elaborate how to Inspect fish products Principles: The student should explain principles involved in inspecting fish products Theories: The student should : - List down the predisposing factors for fish spoilage - Describe the characteristic features of spoiled fish - Outline ways of performing hygienic processing of fish	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: - Markers - White coats - Apron - pH meters - Industrial cape - Overalls - Gumboots - Masks - Record books - Weighing scales - Weighing bridge	

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				Process Assessment	Services Assessment	Knowledge		
		(c) Grading fish and fish products	Brainstorming: Guide the students to brainstorm on grading fish and fish products Demonstration Demonstrate the students to grade fish by skinning quality of fish, size and weight Practical Work By using guide sheet, guide the students to grade fish by skin quality, size and weight.	The student should be able to: • Select work tools and safety gears • Grade fish products • Keep different records • Clean tools, equipment used and work place • Store tools and equipment	Fish products quality maintained according to the set standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to elaborate how to perform fish and fish product grading Principles: The student should outline the principles involved in grading fish and products Theories: The student should : • Elaborate the predisposing factors for fish spoilage • Describe the characteristic features of spoiled fish • Identify fish product specifications • Highlight the importance of Keeping different records	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available • Markers • White coats • Apron • pH meters • Industrial cape • Overalls • Gumboots • Masks • Record books • Weighing scales • Weighing bridge	

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2.0 Designing and constructing farm infrastructure	2.1 Preparing layout of infrastructure for new livestock farm	(a) Sketching simple farm layout	Brainstorming: Guide the students to brainstorm the concept of sketching simple farm layout Demonstration Demonstrate to the student how to sketch simple farm layout Practical Work Guide the students to sketch simple farm layout.	The student should be able to: • Select work tools, equipment, construction materials and safety gears • Measure actual size of proposed farm area • Sketch simple farm lay Keep different records • Clean tools, equipment used and workplace • Store tools and equipment out	Farm layout prepared as per the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to elaborate how to sketch simple farm layout. Principles: The student should present the principles involved in sketching simple farm layout Theories: The student should : • Highlight the importance proper site selection • Present the criteria for farm site selection • Enumerate factors for consideration in preparing farm layout • Elaborate site topography • Outline the essential requirements of farm structure Circumstantial knowledge: Detailed knowledge about	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: • Computer • Measuring tools • Drawing table • Calculator • Working table • Overall • Ledge book • Ruler	36

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
						Environmental issues in relation to waste management		
		(b) Locating sketched farm layout on selected site	Brainstorming: Guide the students to brainstorm on locating sketched farm layout on selected site Demonstration Demonstrate to the students how to locate sketched farm layout on selected site Practical Work Guide the students to locate sketched farm layout on selected site	The student should be able to: - Select work tools, equipment, construction materials and safety gears - Locate area for different farm infrastructures - Locate site machine installation - Locate farm boundaries - Keep different records	Farm layout prepared as per the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to Locate sketched farm layout on selected site Principles: The student should state principles involved in locating different farm infrastructure in a farm. Theories: The student should : - Highlight the importance proper site selection - Present the criteria for farm site selection - Explain the factors for consideration in locating different infrastructures - Outline the essential requirements of farm	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: - Computer - Measuring tools - Drawing table - Calculator - Working table - Overall - Ledge book - Ruler	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
						structures Circumstantial knowledge: Detailed knowledge about Environmental issues in relation to waste management		
		(c) Marking specific area for selected location of structure and boundaries.	Brainstorming: Guide the students to brainstorm on marking specific area for selected location of structure and boundaries. Demonstration Demonstrate to the students how to mark specific area for selected location of structure and boundaries. Practical Work Guide the students	The student should be able to: - Select work tools, equipment, construction materials and safety gears - Locate area for different farm infrastructures - Locate site machine installation - Interpret drawings of farm layout and structures - Mark areas for each specific item in the farm	Marking specific area for selected location of structure and boundaries on farm layout performed as per the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to. mark specific area for selected location of structure and boundaries Principles: The student should explain principles involved in marking specific area for selected location of structure and boundaries Theories: The student should : - Explain the importance of proper site selection - Examine site topography	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available - Computer - Measuring tools - Drawing table - Calculator - Working table - Overall - Ledge book - Ruler	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			to mark specific area for selected location of structure and boundaries.	- Locate farm boundaries - Clear the site		- Outline the factors for consideration in locating different infrastructures - Present the essential requirements of farm structures		
	2.2 Constructing livestock farm structures	(a) Constructing poultry units	Brainstorming: Guide the students to brainstorm on constructing poultry units Demonstration Demonstrate to the students how to construct poultry house Practical Work By using guide sheet, guide the students to construct poultry house.	The student should be able to: - Select work tools, equipment, construction materials and safety gears - Design poultry house - Select site - Clear proposed site - Facilitate/supervise construction - Keep different records - Clean tools, equipment used and work place - Store tools and equipment	Poultry structures for different species constructed as per the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to construct poultry units Principles: The student should present the principles involved in constructing poultry units Theories: The student should : - Explain how to designing of poultry house - Highlight the importance of farm livestock sheds. - Describe the factors for consideration in site selection	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: - Spades - Hoes - Axes - Pick axes - Bush knives - Wheel barrows - Buckets - Trowels - Wooden calmers - Plumb bob	60

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
						• Present the essential requirements for livestock sheds • Explain construction of substantial livestock structures • Highlight the importance of keeping different records.	• Spirit levels • Set of hammers • Set of mallets • Measuring tools • Soil compacter • Calculator • Set of saws • Set of planes • Set of chisels • Sliding bevel • Set of screw drivers • Marking gauge • Set of drill machine • Designing table • Overalls • Gumboots • Carpenter's squires • Builder's squires • Set of vices • Set of clamps	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
		(b) Constructing ruminants' units	Brainstorming: Guide the students to brainstorm on constructing ruminants' house Demonstration Demonstrate to the students how to construct ruminants' house Practical Work By using guide sheet, guide the students to construct ruminants' house	The student should be able to: • Select work tools, equipment, construction materials and safety gears • Design ruminants' house • Select site • Clear proposed site • Facilitate/supervise construction • Keep different records • Clean tools, equipment used and work place • Store tools and equipment	Ruminant structures for different species constructed as per the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to elaborate how to construct ruminants' units Principles: The student should outline the principles involved in constructing ruminants' units Theories: The student should : • Explain how to design ruminants' unit • Describe the importance of farm livestock sheds. • Outline the factors for consideration in site selection • Enumerate essential requirements for livestock sheds • Explain construction of substantial livestock structures • Highlight the	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: • Builder's squares • Carpenter's squares • Set of vices • Set of clamps • Measuring tools • Soil compacter • Calculator • Set of saws • Set of planes • Set of chisels • Sliding bevel • Set of screw drivers • Marking gauge • Set of drill	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
						importance of keeping different records.	machine • Designing table • Overalls • Gumboots • Masks	
		(c) Constructing non-ruminant's units	Brainstorming: Guide the students to brainstorm on constructing non-ruminant's house Demonstration Demonstrate to the students how to construct non-ruminant's house Practical Work By using guide sheet, guide the students to construct non-ruminant's house	The student should be able to: • Select work tools, equipment, construction materials and safety gears • Design non-ruminant house • Select site • Clear proposed site • Facilitate/supervise construction • Keep different records • Clean tools, equipment used and workplace • Store tools and equipment	Non-ruminant structures for different species constructed as per the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to construct non-ruminant house Principles: The student should state principles involved in constructing non-ruminant house Theories: The student should: • Elaborate how to design different non-ruminant's houses. • Highlight the importance of farm non-ruminant sheds. • Present the factors for consideration in site selection • List down the	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: • Spades • Hoes • Axes • Pick axes • Bush knives • Wheel barrows • Buckets • Trowels • Wooden calmers • Plumb bob • Spirit levels	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
						essential requirements for non-ruminant sheds • Explain how to supervise construction of substantial livestock structures • Elucidate the importance of keeping different records	• Set of hammers • Set of mallets • Set of clamps • Measuring tools • Soil compacter • Calculator • Set of saws • Set of planes • Set of chisels • Sliding bevel • Set of screw drivers • Marking gauge • Set of drill machine • Designing table • Overalls • Gumboots	
		(d) Designing spray race	Brainstorming: Guide the students to brainstorm on designing spray race	The student should be able to: • Select work tools, equipment, construction materials and safety gears	Designing spray race for different species performed as per the required	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to elaborate how to design spray race • Principles: The	This element can be achieved at a work place or training institution. The following tools, equipment	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			Demonstration Demonstrate students how to designing spray race Practical Work Guide the students to design spray race	• Design spray race • Keep different records • Clean tools, equipment used and work place • Store tools and equipment	standards of livestock	student should explain principles involved in designing spray race. Theories: The student should : • Highlight the importance of spray race • Describe the factors for consideration in site selection • Present essential requirements for spray race	and protective gears are to be available: • Computer • Measuring tools • Drawing table • Calculator • Working table • Overall • Ruler	
		(e) Designing dipping tank	Brainstorming: Guide the students to brainstorm on designing dip tank Demonstration Demonstrate to the students how to design dip tank Practical Work Guide the students	The student should be able to: • Select work tools, equipment, construction materials and safety gears • Design dip tank • Keep different records • Clean tools, equipment used and work place • Store tools and	Designing dip tank for different species performed as per the required standards of livestock	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to design dipping tank Principles: The student should state the principles involved in designing dipping tank Theories: The student should : • Elaborate the importance of farm	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available • Computer • Measuring tools • Drawing table	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			to design dip tank	equipment		dipping tank - Outline the factors for consideration in site selection - Enumerate the essential requirements of dip tank construction	- Calculator - Working table - Overall - Ruler	
	2.3 Fabricating farm equipment	(a) Fabricating feeders and water trough	Brainstorming: Guide the students to brainstorm on fabricating feeders and water trough Demonstration Demonstrate to the students how to fabricate feeders and water trough Practical Work By using guide sheet guide students to fabricate feeders and water trough	The student should be able to: - Select work tools, equipment, and safety gears - Design farm equipment - Fabricate farm equipment as per design - Keep different records - Clean tools, equipment used and work place - Store tools and equipment	Feeders and water trough fabricated as per the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should elaborate how to Fabricate feeders and water trough Principles: The student should explain principles involved in fabricating feeders and water trough Theories: The student should : - Present advantages of using fabricated equipment - Elaborate different ways of designing of different farm equipment - Explain fabrication	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: - Designing table - Hammers - Squires - brush - Set of vice - Set of clamps - Measuring tools - Calculator	48

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
						materials Highlight the importance of keeping different records	- Set of saws - Set of planes - Workbench	
		(b) Fabricating nests and cages	Brainstorming: Guide the students to brainstorm on fabricating nests and cages Demonstration Demonstrate to the students how to fabricate nests and cages Practical Work By using guide sheet, lead the students to fabricate nests and cages	The student should be able to: - Select work tools, equipment, and safety gears - Design farm equipment - Fabricate farm equipment as per design - Keep different records - Clean tools, equipment used and work place - Store tools and equipment	Nests and cages fabricated as per the required standards of livestock	Knowledge evidence: Detailed knowledge of: Method used: The student should elaborate how to fabricate nests and cages Principles: The student should explain principles involved in fabricating nests and cages Theories: The student should : - Elaborate the advantages of using fabricated equipment - Explain how to design nests and cages - Elaborate fabricated materials - Highlight how to fabricate different nests and cages	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available - Designing table - Hammers - Squires - brush - Set of vice - Set of clamps - Measuring tools - Calculator - Set of saws - Set of planes - Workbench - Timber	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
		(c) Fabricating yoke and skey	Brainstorming: Guide the students to brainstorm on fabricating yoke and skey Demonstration Demonstrate students how to fabricating yoke and skey Practical Work By using guide sheet lead the students to fabricate yoke and skey	The student should be able to: • Select work tools, equipment, and safety gears • Design farm equipment • Fabricate farm equipment as per design • Keep different records • Clean tools, equipment used and work place • Store tools and equipment	Yoke and skey fabricated as per the required standards of livestock keeping	Knowledge evidence: Detailed knowledge of: Method used: The student should elaborate how to fabricate yoke and skey Principles: The student should state the principles involved in fabricating yoke and skey Theories: The student should : • Describe the advantages of using fabricated equipment's • Explain how to design yoke and skey • Elaborate fabricated materials	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: • Designing table • Hammers • Set of vice • Set of clamps • Measuring tools • Set of saws • Workbench • Timber	
		(d) Fabricating brooder	Brainstorming: Guide the students to brainstorm on	The student should be able to: • Select work tools, equipment, and safety gears	Brooders are fabricated as per the required standards of	Knowledge evidence: Detailed knowledge of: Method used: The student should elaborate how to fabricate brooder	This element can be achieved at a work place or training institution.	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			fabricating brooder Demonstration Demonstrate to the students how to fabricate brooder Practical Work By using guide sheet lead the students to fabricate brooder	- Design farm equipment - Fabricate farm equipment as per design - Keep different records - Clean tools, equipment used and workplace - Store tools and equipment	livestock keeping	Principles: The student should explain principles involved in fabricating brooder Theories: The student should : - Highlight the advantages of using fabricated equipment - Elaborate how to design brooder - Explain how to fabricate materials e.g. brooder - Highlight the importance of keeping different records	The following tools, equipment and protective gears are to be available: - Designing table - Hammers - Set of vice - Measuring tools - Set of saws - Workbench - Timber - Sling board	
	2.4 Designing layout for livestock markets and processing facilities	(a) Preparing layout for livestock markets	Brainstorming: Guide the students to brainstorm on preparing layout for livestock markets Demonstration Demonstrate to the	The student should be able to: - Select work tools, equipment and safety gears - Identify basic components of livestock market and processing facilities	Livestock market for different animal species well designed and constructed according to the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to prepare layout for livestock markets Principles: The student should outline the principles involved in	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available:	60

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			students how to prepare layout for livestock markets Practical Work Guide the students to prepare layout for livestock markets	- Design livestock market facilities (ruminant, poultry, pig market facilities) - Sketch layout of livestock market - Select site for livestock market - Keep different records		preparing layout for livestock markets Theories: The student should: - Highlight the importance of livestock markets - Distinguish types of livestock markets - Identify different parts of livestock market - Elaborate factors for consideration in designing livestock market - Explain the factors for site selection - Elaborate how to Construct Livestock market	- Designing tables - Computer - Spades - Hoes - Axes - Bush knives - Wheel barrows - Buckets - Trowels - Set of planes - Set of saws	
		(b) Preparing layout for meat processing facilities	Brainstorming: Guide the students to brainstorm on preparing layout for meat processing facilities	The student should be able to: - Select work tools, equipment, and safety gears - Identify basic components of livestock	Meat processing facilities well designed and constructed according to the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to prepare layout for meat processing facilities Principles: The student	This element can be achieved at a work place or training institution. The following tools, equipment and protective	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			Demonstration Demonstrate students how to preparing layout for meat processing facilities Practical Work Guide students to prepare layout for meat processing facilities	processing facilities • Sketch layout of livestock processing facilities • Select site for livestock processing facilities • Clear the site • Facilitate construction of livestock processing facilities. • Keep different records • Clean tools, equipment used and work place • Store tools and equipment		should state principles involved preparing layout for meat processing facilities Theories: The student should : • Explain the importance of meat processing facilities • Differentiate sections in meat processing facilities and their uses. • Present factors for consideration in design meat processing facilities • Elaborate the factors for site selection • Distinguish meat processing facilities • Identify the basic requirements in food processing • Highlight the importance of keeping different records Circumstantial knowledge: • Detailed knowledge	gears are to be available • Designing tables • Computer • Spades • Hoes • Axes • Bush knives • Wheel barrows • Buckets • Trowels • Set of planes • Set of saws	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
						about • Environmental policy		
		(c) Preparing layout for milk processing facility	Brainstorming: Guide the students to brainstorm on preparing layout for milk processing facility Demonstration Demonstrate students how to preparing layout for milk processing facility Practical Work Guide students to prepare layout for milk processing facility	The student should be able to: • Select work tools, equipment, and safety gears • Identify basic components of milk processing facilities • Design layout for milk processing facilities • Sketch layout of livestock milk processing facilities • Select site for milk processing facilities • Facilitate construction of milk processing facilities	Layout for milk processing facility prepared and constructed according to the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to prepare layout for milk processing facility Principles: The student should outline n principles involved preparing layout for milk processing facility Theories: The student should d: • Dscribe the importance of milk processing facilities • Differentiate sections in milk processing facilities and their uses. • Enumerate factors for consideration in designing milk processing facilities • Site selection	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: • Designing tables • Computer • Spades • Hoes • Axes • Bush knives • Wheel barrows • Buckets • Trowels • Set of planes • Set of saws	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
						Construction milk processing facilities		
		(d) Preparing layout for fish processing facility	Brainstorming: Guide the students to brainstorm on layout for fish processing Demonstration Demonstrate to the students how to prepare layout for fish processing Practical Work Guide the students to prepare layout for fish processing	The student should be able to: - Select work tools, equipment, and safety gears - Identify basic components of fish processing facilities - Design layout for fish processing facilities - Sketch layout of livestock fish processing facilities - Select site for fish processing facilities - Facilitate construction of fish processing facilities	Layout for fish processing facility prepared and constructed according to the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to elaborate how to prepare layout for fish processing facility Principles: The student should state principles involved preparing layout for fish processing facility Theories: The student should : - Explain the importance of fish processing facilities - Differentiate sections in fish processing facilities and their uses. - Enumerate factors for consideration in designing fish processing facilities - Highlight factors for	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: - Designing tables - Computer - Spades - Hoes - Axes - Bush knives - Wheel barrows - Buckets - Trowels - Set of planes - Set of saws	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
						site selection - Explain how to facilitate construction of fish processing facilities Circumstantial knowledge: Detailed knowledge about - Environmental policy		
		(e) Preparing layout for hides and skins processing facility.	Brainstorming: Guide the students to brainstorm on preparing layout for hides and skins processing facility Demonstration Demonstrate to the students how to prepare layout for hides and skins processing facility Practical Work Guide the students	The student should be able to: - Select work tools, equipment, and safety gears - Identify basic components of hides and skins processing facilities - Design layout for hides and skins processing facilities - Sketch layout of livestock hides and skins processing	Layout for hides and skins processing facility prepared and constructed according to the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to elaborate how to prepare layout for hides and skins processing facility Principles: The student should state principles involved preparing layout for hides and skins processing facility Theories: The student should explain: Elaborate the importance of hides and skins processing facilities	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: - Designing tables - Computer - Spades - Hoes - Axes - Bush knives - Wheel barrows	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			to prepare layout for hides and skins processing facility	facilities • Select site for hides and skins processing facilities • Facilitate construction of hides and skins processing facilities		• Differentiate sections in hides and skins processing facilities and their uses. • Elaborate factors for consideration in designing hides and skins processing facilities • Explain criteria for site selection • Elaborate how to facilitate construction of hides and skins processing facilities Circumstantial knowledge: Detailed knowledge about • Environmental policy	• Buckets • Trowels • Set of planes • Set of saws	
3.0 Feeding livestock and fish	3.1 Improving rangeland	(a) Performing reseeding and over sowing	Brainstorming: Guide the students to brainstorm on performing reseeding and over sowing	The student should be able to: • Select work tools, equipment and safety gears • Perform reseeding or over sowing	Reseeding and over sowing performed as per the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should explain how to perform reseeding and over sowing Principles: The student should outline the	This element can be achieved at a work place or training institution. The following tools, equipment and protective	66

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			Demonstration Demonstrate to the students how to broadcast, pit and drill sowing Practical Work Guide the students to broadcast, pit and drill sowing	• Apply manure and fertilizers • Keep different records • Clean tools, equipment used and work place • Determine range land productivity • Store tools and equipment		principles involved in performing reseeding and over sowing Theories: The student should: • Elaborate types of pasture • Differentiate methods of reseeding and over sowing • Highlight the importance of over sowing and reseeding Circumstantial knowledge: Detailed knowledge about • Weather and climatic changes • Safety precautions in the uses of fires	gears are to be available: • Spades • Hoes • Soil samplers • Soil augers • Manure/fertilizer spreaders • Manure or fertilizer seed • Overalls • Gumboots • Masks • Record books	
		(b) Making fire barriers	Brainstorming: Guide the students to brainstorm on making fire barriers Demonstration Demonstrate to the	The student should be able to: • Select work tools, equipment and safety gears • Establish fire break • Keep different	Fire barriers established well as per the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should elaborate how to make fire barriers Principles: The student should articulate the principles involved in	This element can be achieved at a work place or training institution. The following tools, equipment and protective	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			students how to making fire barriers Practical Work Guide students to make fire barriers	records - Clean tools, equipment used and work place - Store tools and equipment		making fire barriers Theories: The student should : - Explain how to Construct fire break - Present different types of fire barriers - Highlight the importance of fire break Circumstantial knowledge: Detailed knowledge about - Weather and climatic changes - Safety precautions in the uses of fires	gears are to be available - Tractor and its implements - Hoe - Spades - Hoes - Axes - Bush knives - Overalls - Gumboots - Masks - Record books	
		(c) Removing weeds and bushes	Brainstorming: Guide the students to brainstorm on removing weeds and bushes Demonstration Demonstrate to the students how to	The student should be able to: - Select work tools, equipment and safety gears - Perform weeding - Control bush - Keep different records - Clean tools, equipment used	weeds and bushes are removed according to the required standards of pasture management	Knowledge evidence: Detailed knowledge of: Method used: The student should elaborate how to remove weeds and bushes Principles: The student should state the principles involved in removing weeds and bushes Theories: The student	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: Hoe	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			remove weeds and bushes by manual and chemicals (herbicides) Practical Work Guide the students to remove weeds and bushes by manual and chemical means	and workplace		should : - Outline different methods of weed control - Explain the advantages of weed control Circumstantial knowledge: Detailed knowledge about - Weather and climatic changes	- Spades - Hoes - Axes - Bush knives - herbicides - Overalls - Gumboots - Masks - Record books	
		(d) Creating paddocks	Brainstorming: Guide the students to brainstorm on creating paddocks Demonstration Demonstrate the students how to construct paddocks Practical Work Guide the students to construct	The student should be able to: - Select work tools, equipment and safety gears - Establish paddocks - Keep different records - Clean tools, equipment used and workplace - Store tools and equipment	Paddocks established as per the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should explain how to creating paddocks Principles: The student should highlight the principles involved in creating paddocks Theories: The student should: - Elaborate the importance creating paddocks - Identify types of paddocks	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: - Hoe - Spades - Axes - Bush knives - Post	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			paddocks			Identify materials used for creating paddocks	- Barbed wire - hammer - Overalls - Gumboots - Masks - Grippe fencing Torque	
		(e) Locating water points	Brainstorming: Guide the students to brainstorm on locating water points Demonstration Demonstrate to the students how to construct and locate water points Practical Work Guide students to construct and locate water points	The student should be able to: - Select work tools, equipment and safety gears - Establish water points - Clean tools, equipment used and work place - Establish water points - Clean tools, equipment used and work place - Determine range land productivity - Store tools and equipment	Water points located as per the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should elaborate how to locate water points Principles: The student should outline principles involved in locating water points Theories: The student should : - Explain how to construct water points in rangeland Circumstantial knowledge: Detailed knowledge about - Weather and climatic changes	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: - Tape measures - surveyor's wheel - Theodolite - Tractor and its implements - Hoe - Spades	
	3.2 Cultivating	(a) Selecting site	Brainstorming: Guide students to brainstorm on	The student should be able to: Select work	Site selected for pasture and fodder	Knowledge evidence: Detailed knowledge of: Method used: The	This element can be achieved at a work place or	92

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
	pastures		locating water points Demonstration Demonstrate to the students how to select sites Practical Work Guide students to select sites	tools, equipment, farm machinery and safety gears • Select site for pasture cultivation • Keep different records • Clean tools, equipment used and work place • Store tools and equipment	crops production according to the required standards	student should elaborate how to Selecting site Principles: The student should outline principles involved in selecting site Theories: The student should : • Enumerate the factors to consider for establishment of pasture • Circumstantial knowledge: Detailed knowledge about • Study soil characteristics of an area.	training institution. The following tools, equipment and protective gears are to be available • Overalls • Gumboots • Masks • Record books	
		(b) Determining soil type	Brainstorming: Guide the students to brainstorm on determining soil type Demonstration Demonstrate to students how to	The student should be able to: • Select work tools, equipment, farm machinery and safety gears • Determine soil type • Keep different records • Clean tools,	Determining soil type for Pasture and fodder crops production performed according to the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should explain how to determining soil type Principles: The student should state principles involved in determining soil type Theories: The student should :	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: • Overalls	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			determine soil type by using laboratory Soil testing and feel Method Practical Work Guide the students to determine soil type by using laboratory Soil testing and feel Method	equipment used and work place • Store tools and equipment		• Types of soil • Elaborate the importance of soil determination	• Gumboots • Soil sampler • Spade • Hoe • Record books	
		(c) Preparing land	Brainstorming: Guide the students to brainstorm on preparing land Demonstration Demonstrate to the students how to perform primary and secondary tillage Practical Work Guide the students to perform primary	The student should be able to: • Select working tools, equipment, farm machinery and safety gears • Perform primary tillage • Perform secondary tillage • Keep different records • Clean tools, equipment used and work place • Store tools and	Land prepared according to the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should explain how to prepare land Principles: The student should outline principles involved in preparing land. Theories: The student should : • Explain how to perform field operations of farm machinery • Describe requirements	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: • Spades • Hoes • Axes • Bush knife • Wheel barrow • Weighing	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			and secondary tillage	equipment		for Maintaining farm machinery - Identify pasture and its agronomical requirements - Elaborate contour establishment - Elaborate how to Fence and maintain paddocks - Explain how to maintain water points/drinking troughs Circumstantial knowledge: Detailed knowledge about - Environmental and soil conservation rules.	scale - Soil sampler - Augers - Sickles - Tractor - Disc ploughs - Harrows - Mowers - Trailers - Manure/fertilizer spreaders - Planters - Overalls - Gumboots - Masks - Record books	
		(d) Planting or sowing (grass, legumes or mixture)	Brainstorming: Guide the students to brainstorm on Planting or sowing (grass, legumes mixture)	The student should be able to: - Select work tools, equipment, farm machinery and safety gears - Sow legumes, grasses and	Planting or Sowing done according to the required standard	Knowledge evidence: Detailed knowledge of: Method used: The student should explain how to plant or sow (grass, legumes or mixture) Principles: The student	This element can be achieved at a work place or training institution. The following tools, equipment and protective	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			Demonstration Demonstrate to the students how to planting or sowing by broadcasting, pitting and hill side Practical Work Guide the students to plant or sow by broadcast, pit and hill side	fodder crops - Plant legumes, grasses and fodder crops - Keep different records - Clean tools, equipment used and work place - Store tools and equipment		should elaborate the principles involved in planting or sowing (grass, legumes or mixture). Theories: The student should : - Differentiate types of seeds - Highlight the importance of planting or sowing in each method	gears are to be available: - Planters - Spades - Hoes - Bush knife - Tractor - Rope - Seed	
		(e) Applying fertilizer /manure	Brainstorming: Guide the students to brainstorm on applying fertilizer /manure Demonstration Demonstrate to the students how to applying fertilizer /manure by	The student should be able to: - Select working tools, equipment, farm machinery and safety gears - Apply manure and fertilizers - Keep different records - Clean tools, equipment used and work place - Store tools and	Fertilizer or manure applied according to the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should explain how to apply fertilizer or manure Principles: The student should explain principles involved in applying fertilizer /manure Theories: The student should : Explain how to apply manure and fertilizer	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: - Overalls - Gumboot - Manure/fertilizer spreaders	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			broadcasting, pitting Practical Work Guide the students to apply fertilizer /manure by broadcast, pit and hill side	equipment		- Identify types of fertilizers or manure Circumstantial knowledge: Detailed knowledge about - Environmental awareness on fertilizer application	Fertilizer or manure	
		(f) Performing weed control	Brainstorming: Guide the students to brainstorm on performing weeding Demonstration Demonstrate to the students how to perform weeding by manual and chemicals (herbicides) Practical Work Guide the students to perform weeding	The student should be able to: - Select work tools, equipment, farm machinery and safety gears - Perform weeding - Control bush - Keep different records - Clean tools, equipment used and workplace - Store tools and equipment	Weed controlling performed as per the required standard	Knowledge evidence: Detailed knowledge of: Method used: The student should elaborate how to perform weed control. Principles: The student should explain principles involved in performing weed control Theories: The student should : - Identify weeds and their control methods Circumstantial knowledge: Detailed knowledge about - Environmental awareness on fire	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available - Overalls - Gumboot - Hoe - Axes - Bush knife - Herbicides	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			by manual and chemical means			application		
		(g) Harvesting and preserving seeds	Group discussion: Guide the students in manageable groups, to elaborate harvesting and preservation of seeds Demonstration Demonstrate to the students how to harvest and preserve seeds Practical Work Guide the students to harvest and preserve seeds	The student should be able to: • Select work tools, equipment, farm machinery and safety gears • Harvest pastures and fodder • Harvest and preserve seeds • Keep different records • Clean tools, equipment used and workplace • Store tools and equipment	Pasture harvested and seeds preserved as per the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should elaborate how to harvest and preserve seeds Principles: The student should outline the principles involved in harvesting and preserve seeds. Theories: The student should : • Describe the methods of seed harvesting • Describe the methods of preserving seeds	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: • Overalls • Gumboot • Mowers • Tractor • Bailer • Manila rope • Bucket • Sickles	
	3.3 Conserving pastures and crop residues	(a) Making hay	Brainstorming: Guide the students to	The student should be able to: • Select work	Hay made according to the required	Knowledge evidence: Detailed knowledge of: Method used: The	This element can be achieved at a work place or	39

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			brainstorm on making hay Demonstration Demonstrate to the students how to make hay Practical Work By using guide sheet lead the students to make hay	tools, equipment, farm machinery and safety gears - Identify right harvesting stage of grass for hay - Harvest grasses - Bail hay - Keep different records - Clean tools, equipment used and workplace - Store tools and equipment	standards of pasture conserving	student should be able explain how to make hay Principles: The student should state principles involved in making hay Theories: The student should: - Highlight the importance of preserving hay - Identify suitable crops for hay making - Enumerate factors for consideration before harvesting crop for making hay - Articulate the nutritive value of hay - Identify types of hay Circumstantial knowledge: Detailed knowledge about - Environmental awareness on fire application	training institution. The following tools, equipment and protective gears are to be available - Overalls - Gumboot - Mowers - Tractor - Hay bailers - Manila rope - Bucket - Sickles	
		(b) Making silage	Brainstorming: Guide the students to brainstorm on	The student should be able to: Select work tools, equipment,	Silage made according to the required standards of	Knowledge evidence: Detailed knowledge of: Method used: The student should be able	This element can be achieved at a work place or training	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			making silage Demonstration Demonstrate to the students how to make silage Practical Work By using guide sheet, lead the students to make silage	farm machinery and safety gears - Identify right harvesting stage of grass for silage making - Identify suitable crop residues - Harvest grasses - Make trench - Make silage - Keep different records - Clean tools, equipment used and workplace - Store tools and equipment	pasture conserving	explain how to make silage Principles: The student should explain principles involved in making silage Theories: The student should : - Describe the importance of preserving silage - Identify suitable crops for silage making - Numerate factors for consideration before harvesting crop for silage - Elaborate the nutritive value of silage - Explain the fermentation process in silage making	institution. The following tools, equipment and protective gears are to be available: - Spades - Hoes - Bush knife - Wheel barrows - Weighing scales - Sickles - Tractor - Mowers - silo - Plastic Bucket - Urea - Molasses - Overalls - Gumboot	
		(c) Preserving crop residues	Brainstorming: Guide the students to brainstorm on	The student should be able to: - Select work tools, equipment, farm machinery and safety gears - Identify suitable crop residues	Pasture and crop residues preserved according to the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able explain how to preserve crop residues Principles: The student should state the	This element can be achieved at a work place or training institution. The following tools,	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			preserving crop residues Demonstration Demonstrate to the students how to preserve crop residues Practical Work Guide the students to preserve crop residues	- Collect crop residues - Preserve hay, silage and crop residues - Harvest and preserve seeds - Keep different records - Clean tools, equipment used and workplace - Store tools and equipment		principles involved in preserving crop residues Theories: The student should : - Elaborate the importance of preserving fodder crop - Identify methods of preserving crop residues - Clarify the proper utilization of crop residues	equipment and protective gears are to be available; - Overalls - Gumboot - Hay ban - Bags - Bucket	
	3.4 Preparing animal and fish feeds	(a) Selecting different animal and fish feed ingredients	Brainstorming: Guide the students to brainstorm on selecting different animal and fish feed ingredients Demonstration Demonstrate to the students how to identify different	The student should be able to: - Select work tools, equipment, utensils and safety gears - Identify different animal and fish ingredients feeds - Keep different feed records - Clean tools, equipment used	Selecting different animal feeds contain right amounts of feed ingredients as recommended for different classes of animals and fish	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to articulate how to select different animal and fish feed ingredients Principles: The student should explain principles involved in selecting different animal and fish feed ingredients Theories: The student	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears should be available: - Buckets - Brooms - Spades	39

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			animal and fish feed ingredients Practical Work By using guide sheet, lead the students to identify different animal and fish feed ingredients	and workplace • Store tools and equipment		should : • Identify different feed stuff according to their groups of nutrients. • Elaborate physical state or form of feeds. • Outline anti-nutritional factors in different types of feed stuff Circumstantial knowledge: Detailed knowledge about • Careful observation of expiry dates of micronutrients used in compounding feeds. • Poisoning of feeds due contaminated feed ingredients or poor storage and ant nutritional factors e.g. Aflatoxin toxicity	• Wheel barrows • Different feed ingredients • Overalls • Gumboots • Masks • Record books • Gloves	
		(b) Preparing different animal and fish feed	Brainstorming: Guide the students to brainstorm on	The student should be able to: • Select work tools, equipment,	Prepared animal feeds contain right amounts of	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to	This element can be achieved at a work place or training	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
		stuff	preparing different animal and fish feed stuff Demonstration Demonstrate to the students how to formulate chick grower, layers breeder, dairy meal and fish mash or pellets Practical Work By using guide sheet, lead the students to formulate chick, grower, layers breeder, dairy meal and fish mash or pellets	utensils and safety gears - Formulate feed for different classes of animals and fish - Collect required feed ingredients - Weigh feed ingredients according to ration as per formula. - Compound feed - Keep different feed records - Clean tools, equipment used and workplace - Store tools and equipment	feed ingredients as recommended for different classes of animals and fish	elaborate how to prepare feed for different types and classes of animals and fish. Principles: The student should outline the principles involved in preparing animals' and fish feed. Theories: The student should : - Elaborate the nutritional requirements for different types and classes of animals' and fish. - Outline factors to consider before feed formulation - Explain how to formulate feed for different types and classes of animals and fish - Describe methods of feed formulation Circumstantial knowledge: Detailed knowledge about.	institution. The following tools, equipment and protective gears are to be available: - Buckets - Brooms - Spades - Wheel barrows - Weighing scales - Hammer mills - Feed mixers - Overalls - Gumboots - Masks - Record books - Gloves	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
						Poisoning of feeds due contaminated feed ingredients or poor storage e.g. Aflatoxin toxicity		
		(c) Packaging and storage of animal and fish feed stuff	Brainstorming: Guide the students to brainstorm on packaging and storage of animal and fish feed stuff Demonstration Demonstrate students how to packaging and storage of fish and animal feeds Practical Work By using guide sheet lead the students to perform packaging and storage of fish and animal feeds	The student should be able to: - Select work tools, equipment, utensils and safety gears - Weigh, pack and Label compounded feed - Store feed - Keep different feed records - Clean tools, equipment used and workplace - Store tools and equipment	Packaging and storage animal and fish feed stuff performed as per the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to elaborate how to package and store animal and fish feed stuff Principles: The student should outline the principles involved in packaging and storage of animal and fish feed stuff Theories: The student should : - Describe methods of storing animal and fish feed - Identify materials used for packaging feeds	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: - Bag sewing machine - Overalls - Spade - Bags - Thread - Bucket - Record book - Labels - Gumboots - Masks	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
4.0 Processing and Utilizing livestock products	4.1 Processing milk	(a) Pasteurizing milk	Brainstorm: Guide the students to brainstorm on pasteurizing milk Demonstration Demonstrate to the students how to pasteurize milk by indirect and direct heat Practical Work By using guide sheet, lead the students to pasteurize milk by indirect and direct heat	The student should be able to: • Select work tools, equipment, machines and safety gears • Maintain hygiene of milk processing unit • Pasteurizing milk • Keep different records • Clean tools, equipment, machine used and workplace • Store tools and equipment	Milk Pasteurized according to the set standards of milk treatment	Knowledge evidence: Detailed knowledge of: Method used: The student should explain how to pasteurize milk Principles: The student should state principles involved in Pasteurizing milk Theories: The student should : • Elaborate how to maintain milk hygiene • Explain milk collection and transportation • Describe ways of handling and storage of milk products • Elucidate ways of marketing milk • Highlight the importance of keeping different records	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: • Buckets • Tables • Milk cans • Milk sieves/filters • Lactometers • Stirrers • Pasteurizer • White coats • Aprons • Gumboots • Industrial caps • Masks • Record books	84
		(b) Preparing	Brainstorming:	The student should be able to:	Cheese is	Knowledge evidence: Detailed knowledge of:	This element can be achieved at a	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
		cheese	Guide the students to brainstorm on preparing cheese Demonstration Demonstrate students how to prepare cheese Practical Work By using guide sheet, guide the students to prepare cheese	• Select work tools, equipment, machines and safety gears • Process cheese • Pack and label milk product • Market the products • Keep different records • Clean tools, equipment, machine used and workplace • Store tools and equipment	prepared according to the set standards of milk products	Method used: The student should explain how to prepare cheese Principles: The student should state principles involved in preparing cheese Theories: The student should : • Outline milk products • Outline procedures of preparing cheese • Explain how to Package and label milk products • Elucidate different ways of handling and storage of milk products • Explain ways of marketing milk products • Highlight the importance of keeping different records • Describe a good media of microbes. • Articulate the nutritive values of milk.	work place or training institution. The following tools, equipment and protective gears are to be available: • Cheese Channing machine • Cheese mould • Cheese press • Cheese rakes • Canning machine • Weighing scales • White coats • Aprons • Record books • Cheese draining table • Cheese vat • Aprons • Gumboots • Industrial caps	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
		(c) Preparing ghee	Brainstorming: Guide the students to brainstorm on preparing ghee Demonstration Demonstrate the students how to prepare ghee Practical Work By using guide sheet guide students to prepare ghee	The student should be able to: • Select work tools, equipment, machines and safety gears • Process ghee • Pack and label • Market the product • Keep different records • Clean tools, equipment, machine used and work place • Store tools and equipment	Ghee is prepared according to the set standards of milk products	Knowledge evidence: Detailed knowledge of: Method used: The student should explain how to prepare cheese Principles: The student should outline principles involved in preparing cheese Theories: The student should : • Identify milk products • Enumerate procedures of preparing ghee • Elaborate how to package and label milk products • Explain how to handle and store of milk products • Explain how to Market of milk product • Highlight the importance of keeping different records Circumstantial knowledge:	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available • Pasteurizer • Refrigerator • Canning machine • Multipurpose vat (cooling and clotting vat) • Incubator • White coats • Apron • Milk cane	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
						Detailed knowledge about - Milk is a perishable product and it is a good media of microbes. - Nutritive values of milk.		
		(d) Preparing butter	Brainstorming: Guide the students to brainstorm on preparing butter Demonstration Demonstrate to the students how to prepare butter Practical Work By using guide sheet, guide students to prepare butter	The student should be able to: - Select work tools, equipment, machines and safety gears - Process butter - Pack and label - Market the product - Keep different records - Clean tools, equipment, machine used and work place - Store tools and equipment	Butter is prepared according to the set standards of milk products and by product	Knowledge evidence: Detailed knowledge of: Method used: The student should explain how to prepare butter Principles: The student should elaborate the principles involved in preparing butter Theories: The student should : - Identify milk products - Enumerate the procedures of preparing butter - Explain how to package and label milk products - Describe how to handle and store of	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: - Cream separators - Milk homogenizer - Milk cans - Butter churn - White coats - Aprons - Gumboots - Industrial caps	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
						milk products Explain how to market milk products	- Masks - Record books	
		(e) Preparing yoghurt	Brainstorming: Guide the students to brainstorm on preparing yoghurts Demonstration Demonstrate to the students how to prepare yoghurt Practical Work By using guide sheet, guide the students to prepare yoghurt	The student should be able to: - Select work tools, equipment, machines and safety gears - Process yoghurt - Pack and label - Market the product - Keep different records - Clean tools, equipment, machine used and work place - Store tools and equipment	Yoghurt is prepared according to the set standards of milk products and by products	Knowledge evidence: Detailed knowledge of: Method used: The student should explain how to prepare yoghurt Principles: The student should state the principles involved in preparing yoghurt Theories: The student should : - List down milk products - Outline procedures of preparing yoghurt - Explain how to package and label milk products - Describe the procedures for handling and storing milk products - Highlight the importance of marketing of milk	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: - Multipurpose vat (cooling and clotting vat) - Yoghurt filler - Incubator - Pasteurizer - Refrigerator - White coats - Aprons - Gumboots - Industrial caps - Record books - Starter culture	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
						product		
		(f) Preparing fermented milk	Brainstorming: Guide the students to brainstorm on preparing fermented milk Demonstration Demonstrate to the students how to prepare fermented milk Practical Work By using guide sheet, guide the students to prepare fermented milk	The student should be able to: • Select work tools, equipment, machines and safety gears • Process fermented milk • Pack and label • Market the product • Keep different records • Clean tools, equipment, machine used and work place • Store tools and equipment	Fermented milk prepared according to the set standards of milk products and by products	Knowledge evidence: Detailed knowledge of: Method used: The student should explain how to prepare fermented milk Principles: The student should describe the principles involved in preparing fermented milk Theories: The student should: • Identify milk products • Enumerate the procedures of preparing fermented milk • Elaborate how to package and label milk products • Describe the procedures for handling and storing milk products • Elucidate different ways of marketing of	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available • Multipurpose vat (cooling and clotting vat) • Incubator • Pasteurizer • Refrigerator • Milk dispenser • Milk packing machine • Crates • Stater culture	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
						milk products		
		(g) Preparing ice cream	Brainstorming: Guide the students to brainstorm on preparing ice cream Demonstration Demonstrate to the students how to prepare ice cream Practical Work By using guide sheet guide students to prepare ice cream	The student should be able to: • Select work tools, equipment, machines and safety gears • Process ice cream • Pack and label • Market the product • Keep different records • Clean tools, equipment, machine used and workplace • Store tools and equipment	Ice cream prepared according to the set standards of milk products and by products	Knowledge evidence: Detailed knowledge of: Method used: The student should explain how to prepare ice cream Principles: The student should outline the principles involved in preparing ice cream Theories: The student should: • Explain milk products • Enumerate the procedures of preparing ice cream • Elaborate how to package and label milk products • Enumerate ways of handling and storing milk products • Elaborate the ways of marketing of milk product	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: • Multipurpose vat (cooling and clotting vat) • Salting tank • Incubator • Pasteurizer • Refrigerator • Milk dispenser • Milk packing machine • Crates	
	4.2	(a) Preparing	Brainstorming:	The student should	Poultry	Knowledge evidence:	This element can	37

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
	Preparing carcasses	poultry carcasses	Guide the students to brainstorm on preparing poultry carcasses Demonstration Demonstrate to the students how to perform antemortem inspection, stunning, scalding, plucking, evisceration, and post-mortem inspection Practical Work Guide students to perform antemortem inspection, stunning, scalding, plucking, evisceration, and post-mortem inspection	be able to: - Select work tools, equipment and safety gears - Maintain hygiene of slaughter facility and equipment - Care slaughter stock in a lairage - Perform stunning - Bleed slaughter stock - Perform scalding - Perform plucking of feathers - Eviscerate carcasses - Split carcasses - Wash carcasses - Prepare carcasses for meat inspection - Handle meat inspection judgments - Weigh carcasses - Handle / chill carcasses - Keep different	carcasses prepared according to the required standards.	Detailed knowledge of: Method used: The student should be able to explain how to: Principles: The student should be able to outline the principles involved in preparing poultry carcasses Theories: The student should : - Explain abattoir Hygiene - Highlight the importance of resting slaughter stock in a lairage - Enumerate stunning methods - Highlight bleeding methods - Explain how to perform antemortem inspection - Enumerate the procedures of dehairing - Elaborate how to perform evisceration of carcass	be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: - Scalding vat - Plucking machine - Electrical stunner (pair of tongs) - Aprons - Tables - White coats - Gumboots - Masks - Record books - Gloves	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
				records - Clean tools, equipment, machine used and work place - Store tools and equipment		- Explain how to perform post-mortem inspection - Highlight good meat inspection judgments Elucidate handling and chilling carcasses Circumstantial knowledge: Detailed knowledge about - Environmental issue due to improper handling of slaughter waste product		
		(b) Preparing ruminant carcasses	Brainstorming: Guide the students to brainstorm on preparing ruminant carcasses Demonstration Demonstrate to the students how to perform antemortem inspection, stunning	The student should be able to: - Select work tools, equipment and safety gears - Maintain hygiene of slaughter facility and equipment - Care slaughter stock in a lairage - Perform stunning - Bleed slaughter	Ruminant carcasses prepared according to the required standards.	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to elaborate how to prepare ruminant carcasses Principles: The student should be able to outline principles involved in preparing ruminant carcasses Theories: The student should :	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: - Electrical stunner - Captive bolt	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			flaying, evisceration, and post-mortem inspection Practical Work Guide the students to perform antemortem inspection, stunning flaying, evisceration, and post-mortem inspection	stock as per • ritual/religious requirements. • Perform flaying • Eviscerate carcasses • Split carcasses • Wash carcasses • Prepare carcasses for meat inspection • Handle meat inspection judgments • Weigh carcasses • Handle / chill carcasses • Keep different records • Clean tools, equipment, machine used and work place • Store tools and equipment		• Explain how to maintain abattoir hygiene • Highlight the importance of keeping slaughter stock in a lairage • Elaborate how to antemortem inspection • Describe the best antemortem inspection judgments after antemortem inspection • Outline different stunning methods • Highlight the importance of proper stunning and bleeding • Enumerate bleeding procedures • List down procedures of flaying/skinning • Explain how to perform evisceration of carcass • Identify factors for meat inspection judgments	pistol • Blow hammers • Bush knives • Scalding vat • Plucking machine • Hide and skin puller • Buckets • Ripping knives • Flaying knives • Sharpening steel • Hoisting device • Gambrel • Splitting saw • Shackling chain • Hoisting rail • Industrial caps • Hoisting hooks • Aprons • White coats • Gumboots • Masks • Record books • Gloves	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
						- Elucidate how to handle and store meat Circumstantial knowledge: Detailed knowledge about - Environmental issues due to improper handling of slaughter waste products.		
		(c) Preparing pig carcasses	Brainstorming: Guide the students to brainstorm on preparing pig carcasses Demonstration Demonstrate to the students how to perform antemortem inspection, stunning scalding, singeing, evisceration, and post-mortem inspection	The student should be able to: - Select work tools, equipment and safety gears - Maintain hygiene of slaughter facility and equipment - Care slaughter stock in a lairage - Perform stunning - Bleed slaughter stock - Perform scalding - Perform singeing - Eviscerate carcasses	Pig carcasses prepared according to the required standards.	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to elaborate how to prepare pig carcasses Principle: The student should be able to outline principles involved in preparing pork carcasses Theories: The student should : - Explain how to maintain abattoir hygiene - Highlight the importance of meat inspection	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available - Electrical stunner (pair of tongs) - Captive bolt pistol - Blow hammers - Bush knives - Scalding vat	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			Practical Work Guide the students to perform antemortem inspection, stunning, scalding, singeing, evisceration, and post-mortem inspection	• Split carcasses • Wash carcasses • Prepare carcasses for meat inspection • Handle meat inspection judgments • Weigh carcasses • Handle / chill carcasses • Keep different records • Clean tools, equipment, machine used and workplace • Store tools and equipment		• Highlight the importance of lair aging slaughter stock • Elaborate how to perform antemortem inspection • Elaborate how to make antemortem inspection judgments • Outline different stunning methods • Explain the importance of proper stunning and bleeding • Enumerate bleeding procedures • Enumerate procedures of flaying/skinning • Elaborate how to perform evisceration of carcass • Explain how to perform post-mortem inspection • Elucidate how to make meat inspection judgments • Elaborate how to Handle and store meat	• Buckets • Ripping knives • Flaying knives • Sharpening steel • Hoisting device • Gambrel • Splitting saw • Shackling chain • Hoisting rail • Mallet • Industrial caps • Hoisting hooks • Aprons • Tables • White coats • Gumboots • Masks • Record books • Gloves	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
						Circumstantial knowledge: Detailed knowledge about Environmental issues due to improper handling of slaughter waste products.		
	4.3 Processing inedible slaughter by products	(a) Processing tail switch, hooves and horns	Brainstorming: Guide the students to brainstorm on processing of tail switch, hooves and horns Demonstration Demonstrate to the students how to perform processing tail switch, hooves and horns Practical work: Guide the students to process tail switch, hooves and	The student should be able to: - Select work tools, equipment, machines and safety gears - Maintain hygiene of processing area - Prepare tail switch, hooves and horns - Keep different records - Clean tools, equipment used and workplace - Store tools and equipment	Tail switch, hooves and horns processed according to the required standards.	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to process tail switch, hooves and horns Principles: The student should state the principles involved in processing tail switch, hooves and horns Theories: The student should : Outline the procedures involved in processing tail switch, hooves and horns	This unit can be achieved at a work place or training institution. The following tools, equipment and safety gears are to be available: - Bush knife - Wheel barrow - Buckets - Skinning and flaying knives - Sharpening steel - Ropes - Spades - Metal drums	37

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			horns				• Frames • pegs • White coats • Aprons • Gumboots • Industrial caps • Masks • Record books	
		(b) Processing hides and skins	Brainstorming: Guide the students to brainstorm on processing of hides and skins Demonstration Demonstrate to students how to process hide and skin by frame and salt drying Practical work: By using guide sheet guide the students to process hide and skin by frame and	The student should be able to: • Select work tools, equipment, machines and safety gears • Maintain hygiene of processing area • De flesh and de fat hides and skins • Perform salting of hides and skins • Store hides and skins • Keep different records • Clean tools, equipment used and work place	Hides and skins processed according to the required standards.	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to process hides and skins Principles: The student should outline principles involved in processing hide and skin Theories: The student should: • List down the procedures involved in processing hide and skin • Explain how to perform lacing of hides and skins • Elaborate how to cure hides and skins • Elucidate how to	This element can be achieved at a work place or training institution. The following tools, equipment and safety gears should be available: • Bush knife • Wheel barrow • Buckets • Skinning and flaying knives • Sharpening steel • Ropes • White coats • Spades • Frames	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			salt drying	Store tools and equipment		perform defleshing and defatting - Describe defleshing and defatting - Explain how to maintain hygiene of hides and skin sheds - Elaborate how to handle and store cured hides and skin - Explain how to control pests - Highlight the importance of keeping different records Circumstantial knowledge - Environmental issues	- pegs - Aprons - Gumboots - Industrial caps - Masks - Record books	
		(c) Preparing blood and bone meal	Brainstorming: Guide the students to brainstorm on preparing blood and bone meal Demonstration Demonstrate to	The student should be able to: - Select work tools, equipment, machines and safety gears - Maintain hygiene of processing area - Prepare bone	Blood and bone meal processed according to the required standards.	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to prepare blood and bone meal Principles: The student should state principles involved in processing blood and bone meal	This element can be achieved at a work place or training institution. The following tools, equipment and safety gears are to be available:	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			students how to prepare blood meal by heating or fermenting and bone meal by furnace. Practical work: By using guide sheet, guide the students to prepare blood meal by heating or fermenting and bone meal by furnace	meal • Prepare blood meal • Keep different records • Clean tools, equipment used and workplace • Store tools and equipment		Theories: The student should explain: • Outline the procedures involved in preparing blood and bone meal • Elaborate the functions of blood and bone meal	• Bush knife • Wheel barrow • Buckets • Sharpening steel • Spades • Frames • White coats • Aprons • Gumboots • Industrial caps • Masks • Record books	
	4.4 Processing meat and edible slaughter by products	(a) Preparing smoked meat	Brainstorming: Guide the students to brainstorm on preparing smoked meat Demonstration	The student should be able to: • Select work tools, equipment, machines and safety gears • Maintain hygiene of meat processing facility, tools, equipment and	Smoked Meat prepared and packed according to the set standards meat hygiene	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to elaborate how to prepare smoked meat Principles: The student should explain principles involved in preparing smoked meat Theories: The student	This element can be achieved at a work place or training institution. The following tools, equipment and safety gears are to be available: • Meat cleavers	84

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			Demonstrate to the students how to preparing smoked meat Practical work: By using guide sheet, guide the students to prepare smoked meat	machines • Cut meat into different standard cuts • Prepare smoked meat • Clean tools, equipment used and work place • Store tools and equipment		should : • Elaborate the purposes of processing meat • Elucidate how to smoke meat • Describe the procedures for packaging and storage	• Buckets • Skinning and flying knives • Meat trays • Weighing scales • Sharpening steel • Cutting tables • Charcoal • White coats • Aprons • Gumboots • Industrial caps • Masks	
		(b) Processing trotter, head and tail and offal	Brainstorming: Guide the students to brainstorm on processing trotter, head, tail and offal Demonstration Demonstrate to the students how to perform processing trotter, head, tail and offal	The student should be able to: • Select work tools, equipment, machines and safety gears • Maintain hygiene of meat processing facility, tools, equipment and machines • Process trotters, head and offals • Clean tools,	Trotter, head and tail and offal processed and packed according to the set standards	Knowledge evidence: Detailed knowledge of: Methods The student should be able to explain how to process trotter, head and tail and offal Principles: The student should outline principles involved in processing trotter, head tail and offals Theories: The student should : • Elaborate the purposes of processing trotter,	This element can be achieved at a work place or training institution. The following tools, equipment and safety gears are to be available: • Meat cleavers • Buckets • Skinning and flying knives • Meat trays	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			Practical Work: Guide the students to perform processing trotter, head, tail and offal	equipment used and work place Store tools and equipment		head and tail and offal - Elaborate processing of offals - Elaborate processing of trotters and head	- Weighing scales - Sharpening steel - Cutting tables - charcoal - White coats - Aprons - Gumboots - Industrial caps - Masks	
		(c) Preparing sun dried meat	Brainstorming: Guide the students to brainstorm on preparing sun dried meat Demonstration Demonstrate to the students how to prepare sun dried meat Practical work: By using guide sheet guide the students to prepare sun dried	The student should be able to: - Select work tools, equipment, machines and safety gears - Maintain hygiene of meat processing facility, tools, equipment and machines - Cut meat into different standard cuts - Prepare sun dried meat - Market sun dried meat	Sun dried meat prepared and packed according to the set standards	Knowledge evidence: Detailed knowledge of: Methods The student should be able to explain how to prepare sun dried meat Principles: The student should state the principles involved in preparing sun dried meat Theories: The student should : - Present the purposes of preparing sun dried meat - Elaborate how to package and label sun dried meat - Highlight the	This element can be achieved at a work place or training institution. The following tools, equipment and safety gears are to be available: - Meat cleavers - Bush knives - Buckets - Meat trays - Weighing scales - Sharpening steel - Hoisting hooks	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			meat	- Keep different records - Clean tools, equipment used and work place - Store tools and equipment		importance of keeping records	- Cutting tables - White coats - Aprons - Industrial caps - Masks - Gumboots	
		(d) Performing canning of meat	Brainstorming: Guide the students to brainstorm on performing canning of meat Demonstration Demonstrate to students how to prepare canning of meat Practical work: By using guide sheet, guide the students to prepare canning of meat	The student should be able to: - Select work tools, equipment, machines and safety gears - Maintain hygiene of meat processing facility, tool, equipment and machines - Perform canning of meat - Keep different records - Clean tools, equipment used and work place - Store tools and equipment	Canning of meat prepared and packed according to the set standards	Knowledge evidence: Detailed knowledge of: Methods The student should be able to elaborate how to prepare meat canning Principles: The student should explain principles involved in preparing meat canning Theories: The student should : - Elaborate purposes of preparing canning meat - Highlight the importance of canning meat	This element can be achieved at a work place or training institution. The following tools, equipment and safety gears are to be available: - Meat cleavers - Computer - Bush knives - Buckets - Meat trays - Weighing scales - Sharpening steel - Hoisting hooks - Cutting tables	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
							• White coats • Aprons • Gumboots	
		(e) Chilling, freezing or blasting meat	Brainstorming: Guide the student to brainstorm on chilling, freezing or blasting meat Demonstration Demonstrate to the students how to perform chilling and freezing of meat Practical work: By using guide sheet, guide the students to perform freezing and chilling of meat	The student should be able to: • Select work tools, equipment, machines and safety gears • Maintain hygiene of meat processing facility, tool, equipment and machines • Perform chilling, freezing or blasting meat • Keep different records • Clean tools, equipment used and work place • Store tools and equipment	Chilling, freezing or blasting meat prepared and packed according to the set standards	Knowledge evidence: Detailed knowledge of: Methods The student should be able to elaborate how to chill, freeze or blast meat Principles: The student should outline principles involved in Chilling, freezing or blasting meat Theories: The student should explain: • Purposes of chilling, freezing or blasting meat • Packaging and labelling	This element can be achieved at a work place or training institution. The following tools, equipment and safety gears are to be available Meat cleavers • Bush knives • Buckets • Meat trays • Weighing scales • Sharpening steel • Hoisting hooks • Cutting tables	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
							• White coats • Aprons • Gumboots • Freezer • Chiller	
		(f) Salting or spicing meat	Brainstorming: Guide the students to brainstorm on preparing salted meat Demonstration Demonstrate to students how to preparing Salting meat Practical work: By using guide sheet guide the students to prepare Salt meat	The student should be able to: • Select work tools, equipment, machines and safety gears • Maintain hygiene of meat processing facility, tool, equipment and machines • Prepare salted meat • Perform spicing of meat • Keep different records • Clean tools, equipment used and work place • Store tools and	Salted/ spicedmeat prepared and packed according to the set standards	Knowledge evidence: Detailed knowledge of: Methods The student should be able to explain how to salt or spice meat Principles: The student should state principles involved in salting or spicing meat Theories: The student should: • Elaborate the purposes of salting or spicing meat • Enumerate the procedures of salting	• This element can be achieved at a work place or training institution. The following tools, equipment and safety gears are to be available: • Meat cleavers • Bush knives • Buckets • Meat trays • Weighing scales • Sharpening steel • Hoisting hooks • Cutting tables	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
				equipment			• White coats • Aprons • Gumboots • Salt • Brine	
		(g)						
		(h) Preparing different types of sausages.	Brainstorming: Guide the students to brainstorm on preparing different types of sausages Demonstration Demonstrate to the students how to preparing different types of sausages Practical work: By using guide sheet, guide the students to prepare different types of sausages	The student should be able to: • Select work tools, equipment, machines and safety gears • Maintain hygiene of meat processing facility, tool, equipment and machines • Mince meat • Prepare different types of sausages • Keep different records	Different types of sausages prepared and packed according to the set standards	Knowledge evidence: Detailed knowledge of: Methods The student should be able to elaborate how to prepare sausages. Principles: The student should outline the principles involved in preparation of sausages. Theories: The student should : • Highlight the purposes of preparing sausages. • Outline the procedures of preparing sausage	• This element can be achieved at a work place or training institution. The following tools, equipment and safety gears should be available: The following tools, equipment and safety gears are to be available • Meat cleavers • Bush knives • Buckets • Meat trays • Weighing	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
							scales - Sharpening steel - Hoisting hooks - Cutting tables - White coats - Aprons - Mincing machine	
5.0 Controlling quality of farm products.	5.1 controlling quality of livestock	(a) Inspecting livestock	Brainstorming: Guide the students to brainstorm on inspect livestock Demonstration Demonstrate to students how to perform antemortem inspection Practical work: By using guide sheet, guide the students to perform antemortem	The student should be able to: - Select work tools and safety gears - Conduct visual inspection - Keep different records - Clean tools, equipment used and workplace - Store tools and equipment	Live animals and poultry quality maintained according to the required set standards.	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to inspect livestock Principles: The student should outline principles involved in inspecting livestock Theories: The student should : - Elaborate how to inspect livestock - Outline the methods of inspecting livestock - Highlight decision making issues	This element can be achieved at a work place or training institution. The following tools, equipment and safety gears are to be available - Coaxer - Markers - White coats - Aprons - Industrial caps - Overalls - Gumboots - Masks - Record books - Weighing	31

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			inspection				scales • Weighing bridge	
		(b) Grading different types of livestock	Brainstorming: Guide the students to brainstorm on grading different types of livestock Demonstration Demonstrate to students how to performing grading different livestock by body conformation and skin appearance Practical work: By using guide sheet, guide the students to perform grading different livestock by body conformation and	The student should be able to: • Select work tools and safety gears • Grade live animals and poultry • Mark and group graded animals and poultry • Keep different records • Clean tools, equipment used and work place • Store tools and equipment	Grading different types of livestock-maintain quality according to the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to elaborate how to grade different live animals and poultry Principles: The student should state principles involved in grading live animals and poultry Theories: The student should : • Explain how to grade ruminants • Identify Tanzania grades • Elaborate how to grade non-ruminant • Describe how to grade poultry	This element can be achieved at a work place or training institution. The following tools, equipment and safety gears are to be available: • Coaxer • Markers • White coats • Aprons • Industrial caps • Overalls • Gumboots • Masks • Record books	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			skin appearance					
		(c) Determining weight of livestock	Brainstorming: Guide the students to brainstorm on determining weight of livestock Demonstration Demonstrate to the students how to determine weight of livestock by weigh bridge and weigh band Practical work: By using guide sheet, guide the students to determine weight of livestock by weigh bridge and weigh band	The student should be able to: • Select working tools and safety gears • Grade live animals and poultry • Mark and group graded animals and poultry • Keep different records • Clean tools, equipment used and work place • Store tools and equipment	Determine weight of animals and poultry maintain quality according to the required standards	Knowledge evidence: Detailed knowledge of: • Method used: The student should be able to explain how to determine body weight of livestock • Principles: The student should explain principles involved in determining weight of livestock • Theories: The student should : • Explain how to determine weight by using weigh band • Describe methods of body weight determination • Highlight the importance of keeping different records	This element can be achieved at a work place or training institution. The following tools, equipment and safety gears are to be available: • Markers • White coats • Aprons • Industrial caps • Weigh bands • Overalls • Gumboots • Masks • Record books • Weighing bridge • Weigh band	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
	5.2 Controlling quality of livestock products	(a) Performing visual inspection	Brainstorming: Guide the students to brainstorm on performing visual inspection Demonstration Demonstrate to the students how to perform visual inspection of milk, meat, hide, skin and eggs Practical work: Guide the students to perform visual inspection of milk, meat, hide, skin and eggs	The student should be able to: • Select work tools and safety gears • Perform visual inspection to livestock products • Keep different records • Clean tools, equipment used and workplace • Store tools and equipment	Quality of livestock and poultry products maintained according to the required standards.	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to elaborate how to perform visual inspection livestock products. Principles: The student should highlight principles involved in inspecting different livestock products Theories: The student should explain how to perform: • Inspection of meat • Inspection of milk • Inspection of egg • Inspection of hides and skin	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: • Coaxer • Markers • White coats • Aprons • Industrial caps • Overalls • Gumboots • Masks • Record books	62
		(b) Performing organoleptic test	Brainstorming: Guide the students to brainstorm on	The student should be able to: • Select work tools and safety gears • Perform	Quality of livestock and poultry products maintained	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to perform	This element can be achieved at a work place or training institution.	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			performing organoleptic test Demonstration Demonstrate to the students how to perform organoleptic test of milk and meat by smelling and tasting Practical work: By using guide sheet guide, the students to perform organoleptic test of milk and meat by smell and taste	organoleptic test in milk and meat • Keep different records • Clean tools, equipment used and work place • Store tools and equipment	according to the required standards	organoleptic test Principles: The student should outline principles involved in performing organoleptic test Theories: The student should explain how to: • Perform smelling • Perform tasting	The following tools, equipment and protective gears are to be available: • Coaxer • Markers • White coats • Aprons • Industrial caps • Overalls • Gumboots • Masks • Record books	
		(c) Performing lactometer test.	Brainstorming: Guide the students to brainstorm on performing lactometer test.	The student should be able to: • Select work tools and safety gears • Perform lactometer test • Keep different records	Quality of livestock and poultry products maintained according to the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to elaborate how to perform lactometer test Principles: The student should outline principles	This element can be achieved at a work place or training institution. The following tools, equipment and protective	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			Demonstration Demonstrate to the students how to determine density of milk by lactometer Practical work: By using guide sheet, lead the students to determine density of milk by lactometer	- Clean tools, equipment used and work place - Store tools and equipment		involved in performing lactometer test Theories: The student should : Outline the procedures of determining density of milk	gears are to be available: - Coaxer - Markers - White coats - Aprons - Industrial caps - Overalls - Gumboots - Masks - Record books - lactometer	
		(d) Collecting samples for laboratory test	Brainstorming: Guide the students to brainstorm on collecting samples for laboratory test Demonstration Demonstrate to students how collecting blood, faecal, urine and lymphoid fluid	The student should be able to: - Select work tools and safety gears - Collect samples - Keep different records - Clean tools, equipment used and work place - Store tools and equipment	Quality of livestock and poultry products maintained according to the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to collect sample Principles: The student should elaborate principles involved in collecting sample Theories: The student should elaborate how to : -	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: - Markers - White coats - Aprons - Overalls	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			sample Practical work: Guide the students to collect blood, faecal, urine and lymphoid fluid sample			- Collect blood - Collect faecal matter - Collect urine - Collect lymphoid etc	- Gumboots - Masks - Record books - Bottle sample - Vacutainer tube - syringe	
		(e) Handling meat inspection judgments	Brainstorming: Guide the student to brainstorm handling meat inspection judgment Demonstration Demonstrate to the students how to handle meat inspection judgement of tuberculosis Practical work: Guide the students to collect blood, faecal, urine and	The student should be able to: - Select work tools and safety gears - Inspect slaughter facilities and environment hygiene - Prepare carcass for meat inspection - Handle meat inspection judgments - Keep different records - Clean tools, equipment used and workplace - Store tools and	Quality of livestock and poultry products maintained according to the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to handle meat inspection judgement Principles: The student should state principles involved in handling meat inspection judgment Theories: The student should : Highlight the importance of decision making in meat inspection	This unit can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: - Coaxer - Markers - Ripping knife - Flaying knife - Sharpening steel - Sterilizer - Lactometers - Acid test kits	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			lymphoid fluid sample	equipment				
		(f) Grading meat or carcass, milk and eggs.	Brainstorming: Guide the students to brainstorm on the concept of grading meat or carcass, milk and eggs Demonstration Demonstrate to students how to grading egg by egg grader and milk by lactometer Practical work: By using guide sheet, guide the students to grade egg by egg grader and milk by lactometer	The student trainee should be able to: • Select work tools and safety gears • Inspect meat van or transportation facility. • Inspect milk and meat handling utensils • Inspect milk, meat and eggs • Grade meat/carcasses, milk and eggs • Keep different records • Clean tools, equipment used and work place • Store tools and equipment	Quality of livestock and poultry products maintained according to the required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to grade meat or carcass, milk and eggs. Principles: The student should outline principles involved in grading meat or carcass, milk and eggs. Theories: The student should : • Explain how to determine density of milk • Elaborate how to determine class eggs • Highlight the importance of inspecting livestock products	This unit can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: • Coaxer • Markers • Ripping knife • Flaying knife • Sharpening steel • Sterilizer • Lactometers • Acid test kits • Tables • White coats • Sample bottles • Aprons • Industrial caps • Overalls	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
							- Gumboots - Masks - Record books	
	5.3 Controlling quality of hides and skins	(a) Inspecting hides and skins	Brainstorming: Guide the students to brainstorm on the concept of inspecting hides and skins Demonstration Demonstrate to the students how to inspect hide and skin by size, colour, thickness, scarring and blemishes and types of hides Practical work: By using guide sheet, guide the students to inspect hides and skins based on size,	The student should be able to: - Select work tools and safety gears - Identify skins and hides defects - Inspect hides and skins - Keep different records - Clean tools, equipment used and work place - Store tools and equipment	Hides and skins quality maintained according to the set standards.	Knowledge evidence: Detailed knowledge of: Method used: the student should be able to elaborate how hides and skins quality are maintained according to the set standards. Principles: The student should state the principles involved in inspecting hides and skins Theories: The student should explain the: - Economic importance of inspection - Common defects of hides and skins	This element unit can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: - Markers - White coats - Aprons - knives - Industrial caps - Overalls - Gumboots - Masks - Record books	21

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			shape, visualisation, type, odour, and check for holes and tear.					
		(b) Grading hides and skins	Brainstorming: Guide the students to brainstorm on grading of hides and skins Demonstration Demonstrate to the students how to grade hide and skin by types of hides, colours, condition and thickness Practical work: By using guide sheet, instruct e the students to grade hides and skins based on type ,	The student should be able to: • Select work tools and safety gears • Grade hides and skins • Weigh hides and skins • Keep different records • Clean tools, equipment used and work place • Store tools and equipment	Hides and skins quality graded according to the set standards	Knowledge evidence: Detailed knowledge of: Method used: the student should be able to explain how to grad hides and skins are Principles: The student should outline principles involved in grading hides and skins Theories: The student should explain the : • Characteristic features of different grades of hides • Characteristic features of spoiled hide/skin	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: • Markers • White coats • Aprons • knives • Industrial caps • Overalls • Gumboots • Masks • Record books • Weighing scales	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Knowledge		
			colour, condition and thickness					

Form Four

Table 6: Detailed Contents for Form Four

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Underpinning Knowledge		
1.0 Performing breeding of livestock	1.1 Managing breeding stock	(a) Managing poultry breeding flock	Brainstorm: Guide the student to brainstorm elaborate managing poultry breeding flock Demonstration Demonstrate to students how to collecting eggs, selection of chicks Practical work: By using guide sheet guide the students to collect eggs, and selection of chicks	The student should be able to: • Select working equipment, tools and safety gears • Maintain hygiene of breeding units • Identify breeding poultry within the flock according to production requirements • Facilitate natural mating of different flock • Evaluate performance of off springs • Control breeding • Keep different records • Clean tools, equipment used and work place • Store tools and equipment	Management of poultry breeding flock performed as per required poultry husbandry practices	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to manage poultry breeding flock Principles: The student should explain principles involved in managing poultry breeding flock Theories: The student should explain: - • Importance of breeding • Criteria used in selecting poultry for breeding • Natural and artificial mating • offspring projections for a batch • Offspring Performance	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: - • Weighing scales • Artificial insemination kit • Liquid nitrogen containers • Ropes • Ram aprons • Bucket s • Anti-kick bars • Scalpel blades • Examination gloves • White coats	164

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Underpinning Knowledge		
						evaluation	• Overalls • Gumboots • Masks	
		(b) Managing ruminant breeding stocks	Brainstorming: Guide students to brainstorm on managing ruminant breeding stocks Demonstration Demonstrate to students how to perform pregnancy diagnosis, Practical work: By using guide sheet guide the students to perform pregnancy diagnosis	The student should be able to: • Select working equipment, tools and safety gears • Maintain hygiene of breeding units • Identify breeding animals within the herd according to production requirements • Facilitate natural mating of different stocks • Evaluate performance of off springs • Control breeding • Clean tools, equipment used and work place • Store tools and equipment	Management of ruminant breeding stocks performed as per required animal husbandry practices	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to manage ruminant breeding stocks Principles: The student should explain principles involved in managing ruminant breeding stocks Theories: The student should explain: - • Importance of breeding • Criteria used in selecting animals for breeding • Oestrous/heat detection • Natural and artificial mating • Pregnancy diagnosis in farm	This element can be achieved at a work place or training institution. The following tools, equipment and protective gear are to be available: - • Weighing bridge • Weighing scales • Weighing bands • Artificial insemination kit • Liquid nitrogen containers • Ropes • Bucket • Burdizzos	

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				Process Assessment	Services Assessment	Underpinning Knowledge		
						animals • Offspring projections for a batch • Offspring Performance evaluation • Breeding control in a farm	• Elastrators • Anti-kick bars • Scalpel blades • Examination gloves • Obstetrical gloves • Bull ring applicator	
		(c)						
		(d) Managing non - ruminant breeding stocks	Brainstorming: Guide students to brainstorm on managing non-ruminant breeding stocks Demonstration Demonstrate to students how to perform artificial insemination, and heat detection Practical work: By using guide sheet guide the students to	The student should be able to: • Select working equipment, tools and safety gears • Maintain hygiene of breeding units • Identify breeding animals within the herd according to production requirements • Facilitate natural mating of different stocks • Evaluate performance of off springs • Control breeding • Keep different records	Management of non - ruminant breeding stocks performed as per required animal husbandry practices	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to manage non -ruminant breeding stocks. Principles: The student should explain principles involved in managing non - ruminant breeding stocks Theories: The trainee should explain: - • Importance of breeding • Criteria used in selecting animals	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: - • Weighing bridge • Artificial insemination kit • Liquid nitrogen containers • Ropes	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Underpinning Knowledge		
			perform artificial insemination, and heat detection	- Clean tools, equipment used and work place - Store tools and equipment		for breeding - oestrous/heat detection - Natural and artificial mating - Pregnancy diagnosis in farm animals - Breeding control in a farm	- Bucket s - Anti-kick bars - Scalpel blades - Examination gloves - Pig snare - White coats - Overalls - Gumboots - Masks - Record books	
		(e) Performing natural mating	Brainstorming: Guide students to brainstorm on performing natural mating Demonstration Demonstrate to students how to selecting suitable mating pair and cleaning house, Practical work:	The student should be able to: - Select working equipment, tools and safety gears - Maintain hygiene of breeding units - Identify breeding animals within the herd according to production requirements - Facilitate natural mating of different stocks - Evaluate performance	Natural mating of breeding stock performed as per required animal husbandry practices	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to Perform natural mating Principles: The student should explain principles involved in performing natural mating Theories: The student should explain: -	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: - - Weighing bridge - Weighing scales - Weighing bands	

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				Process Assessment	Services Assessment	Underpinning Knowledge		
			Guide the students to select suitable mating pair and cleaning house,	of off springs • Control breeding • Keep different records • Clean tools, equipment used and work place • Store tools and equipment		• Importance of natural mating • Criteria used in selecting animals for breeding • oestrous/heat detection • Natural mating • Pregnancy diagnosis in farm animals • Offspring projections for a batch • Offspring Performance evaluation • Breeding control in a farm	• Artificial insemination kit • Liquid nitrogen containers • Ropes • Ram aprons • Bucket s • Burdizzos • Elastrators • Anti-kick bars • Scalpel blades holders • Examination gloves • Obstetrical gloves • Bull ring applicator • Pig snare • White coats • Overalls • Gumboots	
		(f) Practicing artificial inseminatio	Brainstorming: Guide students to brainstorm on	The student should be able to: • Select working equipment, tools and	Artificial insemination of different breeding	Knowledge evidence: Detailed knowledge of: Method used: The student should be	This element can be achieved at a work place or training	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Underpinning Knowledge		
		n	practicing artificial insemination Demonstration Demonstrate to students how to performing semen collection, processing, storage and inseminating a dam Practical work: By using guide sheet guide the students to perform semen collection, process, storage and inseminate a dam	safety gears • Maintain hygiene of breeding units • Identify breeding animals within the herd according to production requirements • Facilitate artificial insemination of different stocks • Evaluate performance of off springs • Control breeding • Keep different records • Clean tools, equipment used and work place • Store tools and equipment	stocks performed as per required animal husbandry practices	able to explain how to practice artificial insemination. Principles: The student should explain principles involved in practicing artificial insemination Theories: The student should explain: - • Importance of artificial insemination • Advantage and disadvantage of artificial insemination • Oestrous or heat detection • Pregnancy diagnosis in farm animals • Breeding control in a farm	institution. The following tools, equipment and protective gears are to be available: - • Weighing bridge/ bands • Artificial insemination kit • Liquid nitrogen containers • Ropes • Bucket s • Examination gloves • Obstetrical gloves • Bull ring applicator • Pig snare • White coats • Overalls • Gumboots	
	1.2 Maintaining	(a) Maintaining hatchery	Brainstorming: Guide students to	The student should be able to:	Hatchery performed as	Knowledge evidence: Detailed knowledge	This element can be achieved at a	230

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Underpinning Knowledge		
	hatchery	hygiene	brainstorm on maintaining hatchery hygiene Demonstration Demonstrate to students how to performing fumigation of hatchery facilities Practical work: By using guide sheet guide the students to perform fumigation of hatchery facilities	• Select working equipment, tools machine and safety gears • Merits of hatchery • Clean and fumigate machine • Manage hatchery • Clean tools, equipment machines used and work place • Store tools and equipment	per required set standards	of: Method used: The student should be able to explain how to maintain hatchery hygiene. Principles: The student should explain principles involved in maintaining hatchery hygiene Theories: The student should explain: - • Hygiene maintenance during hatchery practices and after • Hatchery management procedures	work place or training institution. The following equipment, tools, machine and protective gears are to be available: - • Incubator • Fumigation tools • Water basins • Buckets • Dustbins • Examination gloves • White coats • Gumboots	
		(b) Sorting and grading egg	Brainstorm: Guide the student to brainstorm on sorting and grading egg Demonstration:	The student should be able to: • Select working equipment, tools machine and safety gears • Grading of eggs • Sort eggs for hatching	Sorting and grading eggs performed as per required set standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to sort and grad egg Principles: The student should explain principles involved in	This element can be achieved at a work place or training institution. The following equipment, tools, machine and protective gears	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Underpinning Knowledge		
			Demonstrate to students how to grading by egg grader and sorting by observing oval shape By using guide sheet guide the students to grad egg by egg grader and sort egg by observe oval shape	• Clean eggs for hatching • Fumigate eggs for hatching • Clean and fumigate setter and hatcher machine • Clean tools, equipment machines used and work place • Store tools and equipment		sorting and grading egg Theories: The student should explain: - • Egg sorting • Egg fumigation	are to be available: - • Water basins • Buckets • Dustbins • Examination gloves • White coats • Gumboots • Egg grader • Record book	
		(c) Performing candling	Brainstorming: Guide students to brainstorm on performing candling Demonstration Demonstrate to students how to performing candling of eggs Practical work:	The student should be able to: • Select working equipment, tools machine and safety gears • Sorted eggs • Clean eggs • Perform candling • Assess fertility • Clean tools, equipment machines used and	Candling performed as per required set standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to perform candling Principles: The student should explain principles involved in performing candling Theories: The student should explain: - • Assess egg fertility	This element can be achieved at a work place or training institution. The following equipment, tools, machine and protective gears are to be available: - • Egg Candler	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Underpinning Knowledge		
			By using guide sheet guide the students to perform candling of eggs	work place • Store tools and equipment		• Record keeping	• Water basins • Buckets • Tables • Dustbins • Examination gloves • White coats • Gumboots	
		(d) Operating hatchery and incubator	Group discussion: Guide students through manageable groups, to elaborate operating hatchery and incubator Demonstration Demonstrate to students how to performing setting of incubator requirements for incubating eggs Practical work: By using guide sheet guide the students to perform setting of incubator	The student should be able to: • Select working equipment, tools machine and safety gears • Clean and fumigate setter and hatcher machine • Set eggs in the setter machine • Manage hatchery • Assess fertility • Transfer eggs to the hatcher • Perform candling • Clean tools, equipment machines used and work place • Store tools and equipment	Hatchery and incubator operated as per required set standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to operate hatchery and incubator. Principles: The student should explain principles involved in operating hatchery and incubator Theories: The student should explain: - • Assess egg fertility • Temperature control • Humidity in incubators and hatchers • Ventilation control • Egg turning	This element can be achieved at a work place or training institution. The following equipment, tools, machine and protective gears are to be available: - • Incubator • Egg Candler's • Fumigation tools • Water basins • Buckets • Tables • Dustbins • Examination gloves • White coats	

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				Process Assessment	Services Assessment	Underpinning Knowledge		
			requirements for incubate eggs			Hygiene maintenance during hatchery practices	- Gumboots - Masks - Record book	
		(e) Performing chick sexing	Brainstorm: Guide the student to brainstorm on performing chick sexing Demonstration Demonstrate to students how to performing chick sexing Practical work: By using guide sheet guide the students to perform chick sex	The student should be able to: - Select working equipment, tools machine and safety gears - Sex chicks - Asses hatchability - Clean tools, equipment machines used and work place - Store tools and equipment	Chick sexing performed as per required set standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to Perform chick sexing Principles: The student should explain principles involved in performing chick sexing Theories: The student should explain: - - Sorting and sexing of chicks - Packaging and labelling - Record keeping	This element can be achieved at a work place or training institution. The following equipment, tools, machine and protective gears are to be available: - - Examination gloves - White coats - Gumboots - Masks - Sexing tool	
		(f) Handling day old chicks	Brainstorming: Guide students to brainstorm on handling day old	The student should be able to: Select working equipment, tools	Day old chicks handled as per required	Knowledge evidence: Detailed knowledge of: Method used: The student should be	This element can be achieved at a work place or training	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Underpinning Knowledge		
			chicks Demonstration Demonstrate to students how to vaccinating of day-old chick and packaging Practical work: By using guide sheet guide the students to vaccinate day old chick and package	machine and safety gears • Vaccinate chicks • Pack chicks • Label chick boxes • Clean tools, equipment machines used and work place • Store tools and equipment	set standards	able to explain how to handle day old chicks. Principles: The trainee should explain principles involved in: handling day old chicks Theories: The trainee should explain: - • Vaccination of chicks • Packaging and labelling of chicks • Record keeping	institution. The following equipment, tools, machine and protective gears are to be available: - • Refrigerator • Automatic vaccinator • Examination gloves • White coats • Gumboots	
		(g) Transporting day old chicks	Group discussion: Guide students through manageable groups, to elaborate transporting day-old chick Demonstration Demonstrate to	The student should be able to: • Select working equipment, tools machine and safety gears • Pack chicks in transportation facilities • Clean tools, equipment machines used and	Day old chicks transported as per required set standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to transport day old chicks Principles: The student should explain principles involved in	This element can be achieved at a work place or training institution. The following equipment, tools, machine and protective gears are to be	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
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			students how to performing packaging, labelling and loading and transport chicks Practical work: By using guide sheet guide the students to perform package, label and loading and transport chicks	work place • Store tools and equipment		transporting day-old chicks • Theories: The student should explain: - • Packaging and labelling of chicks • Loading day old chick	available: - • Examination gloves • Chick box • White coats • Gumboots • Masks • Labelling stickers	
2.0 Managing livestock disease	2.1 Performing tentative diagnosis of livestock diseases	(a) Performing clinical examination	Brainstorming: Guide students to brainstorm on performing clinical examination Demonstration Demonstrate to students how to performing palpation, auscultations distance examination of	The student should be able to: • Select working equipment, tools and safety gears • Take history of sick animal • Examine sick animal • Measure temperature, pulse and respiratory rates • Sterilize equipment and tools • Maintain hygiene of	Tentative Clinical examination performed according to required animal health practices.	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to Perform clinical examination Principles: The student should explain principles involved in performing Clinical examination Theories: The student should explain: - • History taking	This element can be achieved at a work place or training institution. The following tool and equipment are to be available • Thermometers • Stethoscopes • Bull leader • Set of mouth gauges	116

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Underpinning Knowledge		
			animals Practical work: By using guide sheet guide the students to perform palpation, auscultations distance examination of animals	the working place Make tentative diagnosis Keep different records		from animals' owner - Examination of environment and - Thorough examination of sick animal - Clinical signs - Differential diagnosis	- Set of speculums - Nose ring applicator - Dog muzzles - Dog catchers - Pig snare - Ropes - Overalls - White coats - Gumboots	
		(b) Collecting and submit samples	Brainstorming: Guide students to brainstorm on collecting and submit samples Demonstration Demonstrate to students how to collecting biopsy, blood, swabs faecal and etc samples Practical work: By using guide sheet guide the students to collect biopsy,	The student should be able to: - Select working equipment, tools and safety gears - Sterilize equipment and tools - Maintain hygiene of the working place - Prepare sample containers - Collect specimen from sick animal - Facilitate/process of sample - Examine specimen - Keep different records	Tentative diagnosis of animal diseases performed according to required animal health practices.	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to collect and submit samples Principles: The student should explain principles involved in collecting samples Theories: The student should explain: - - Types of specimen - Procedures of sample collection	This element can be achieved at a work place or training institution. The following tool and equipment are to be available - Cool boxes - Examination gloves - Obstetrical gloves - Microscopic slides - Set of forceps	

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			blood, swabs faecal and etc samples	Clean tools, equipment used and work place			- Bottle sample - Scalpel blade - Syringe - Vacutainer tube and needle	
		(c) Handling samples	Brainstorming: Guide students to brainstorm on handling samples Demonstration Demonstrate to students how to performing packaging and labelling samples Practical Work By using guide sheet guide students to perform package and label samples	The student should be able to: - Select working equipment, tools and safety gears - Facilitate/process of sample - Examine specimen - Packaging of sample - Labelling of sample - Storage and transport samples	Tentative diagnosis of animal diseases performed according to required animal health practices.	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to handle samples Principles: The student should explain principles involved in handling samples Theories: The student should explain: - - Specimen processing reagents - Preservatives of samples - Importance of sample labelling	This element can be achieved at a work place or training institution. The following tool and equipment are to be available - Cool boxes - Anti-kick bar - Overalls - White coats - Gumboots - Masks	
	2.2	(a) Checking	Group discussion:	The student should be	Vital clinical	Knowledge evidence:	This element can	154

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Underpinning Knowledge		
	Nursing diseased livestock	vital clinical signs	Guide students through manageable groups, to elaborate checking vital clinical signs Demonstration Demonstrate to students how to performing clinical examination of sick animal Practical work: By using guide sheet guide the students to perform clinical examination of sick animals	able to: • Select working equipment, tools and safety gears • Maintain hygiene of working place • Monitor health parameters • Collect and examine specimen • Make diagnosis • Facilitate pregnancy diagnosis • Assist animal during parturition • Clean tools, equipment used and work place	signs of sick animal checked according to required animal health practices	Detailed knowledge of: Method used: The student should be able to explain how to check vital clinical signs of sick animal Principles: The student should explain principles involved in determining clinical signs sick animal Theories: The student should explain: - • Monitoring health parameters of sick animal • Specimen collection and examination • Facilitate pregnancy diagnosis	be achieved at a work place or training institution. The following tool , equipment and protective gears are to be available • Thermometers • Stethoscopes • syringes • speculum • Bull leader • mouth gags • Nose ring • Surgical gloves • Examination gloves • Obstetrical gloves	
		(b) Administering drug or supportive therapy	Brainstorming: Guide students to brainstorm on administering drug or supportive	The student should be able to: • Select working equipment, tools and safety gears	Drug administer according to required dose and health of animal	Knowledge evidence: Detailed knowledge of: • Method used: The student should	This element can be achieved at a work place or training institution.	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Underpinning Knowledge		
			therapy Demonstration Demonstrate to students how to administering different drugs and vaccine Practical work: By using guide sheet guide the students to administer different drugs and vaccine	• Manage post-parturient complications • Manage post-parturient care of dam and offspring • Manage reproductive diseases and disorders		be able to explain how to administer drug • Principles: The student should explain principles involved in administering drug or supportive therapy • Theories: The student should explain: - • Route of drug administration • Drug administration	• The following tool, equipment and protective gears are to be available • Syringe and needle • Drugs • Restraints • Pessaries • Overalls • Gumboots • Masks	
		(c) Attending simple animal wounds	Brainstorming: Guide students to brainstorm on of attending simple animal wounds Demonstration Demonstrate to students how to performing simple	The student should be able to: • Select working equipment, tools and safety gears • Maintain hygiene of working place • Administer local anaesthetic and tranquillizers • Attend simple surgical	Simple animal wounds attended according as per required standard of conducting moor surgery	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to attend minor surgery Principles: The student should explain principles involved in	This element can be achieved at a work place or training institution. The following tool, equipment and protective gears are to be available • Surgical Table	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
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			surgical of hernia, abscesses, fracture and etc Practical Work By using guide sheet guide students to perform simple surgical of hernia, abscesses, fracture	cases (wounds, hernia, simple fractures, abscesses, castration, bloat and choke) Clean tools, equipment used and work place		performing minor surgery Theories: The student should explain: - - Local anaesthetics - Post partem care - Castration - Fractures - Hernia - Abscesses	- Surgical glove - Surgical blade - Set of surgical forceps - Set of obstetrical forceps - Pair of scissors - Scalpel blade holders - Needle holders - Suture material	
		(d) Communicating with higher authority	Brainstorm: Guide the student to brainstorm on communicating with higher authority Demonstration Demonstrate to students how to communicating with high level after occurrence of	The student should be able to: - Select working equipment, tools and safety gears - Eruption notifiable diseases such as lumpy skin, foot and mouth diseases - Maintain hygiene of working place - Perform communication	Communication with higher authority Performed as per standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to communicate with higher authority Principles: The student should explain principles involved in communicating with higher authority	This element can be achieved at a work place or training institution. The following tool, equipment and protective gears are to be available - Computer - Printer - Photocopy	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Underpinning Knowledge		
			notifiable disease Practical Work Guide students to communicate with high level after occurrence of notifiable disease	Clean tools, equipment used and work place		Theories: The student should explain: - - Procedures of communication	paper - Table - Dustbin	
	2.3 Performing prevention and control of livestock diseases	(a) Applying acaricides or insecticides	Brainstorming: Guide students to brainstorm on applying acaricides or insecticides Demonstration Demonstrate to students how to performing dipping of animals and fumigation livestock house Practical work: By using guide sheet guide the students to perform dipping of animals and fumigation livestock	The student should be able to: - Select working equipment, tools and safety gears - Perform disinfection and fumigation - Spray acaricides - Dip animals - Keep different records	Acaricides or insecticides applied to control parasites according to required animal health practices.	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to applying acaricides or insecticides Principles: The student should explain principles involved in application of acaricides Theories: The student should explain: - - Advantages of application of acaricides - Side effect of acaricides	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: - - Set of syringe and needles - Knap suck sprayer - Acaricides - Overall - Over roll - Gumboots - Dip tank	116

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Underpinning Knowledge		
			house				• Insecticides • Examination gloves	
		(b) Performing deworming	Brainstorming: Guide students to brainstorm on performing deworming Demonstration Demonstrate to students how to administering of anthelmintic Practical Work By using guide sheet guide students to administer of anthelmintic	The student should be able to: • Selecting working equipment, tools and safety gears • Restrain livestock • Route of administer of drugs • Deworm animals • Keep different records • Clean tools, equipment used and work place • Store tools and equipment	Deworming performed according to required animal health practices.	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to perform control and prevent worms • Principles: The student should explain principles involved in performing deworming • Theories: The student should explain: - • Group of anthelmintic • Route of administration of anthelmintic • Importance of anthelmintic	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: - • Set of syringe and needles • Drenching gun • Bolus Gun • Anthelmintic • Overall • Over roll • Gumboots	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Underpinning Knowledge		
		(c) Vaccinating livestock	Brainstorming: Guide students to brainstorm on vaccinating livestock Demonstration Demonstrate to students how to vaccinating livestock Practical work: By using guide sheet guide the students to vaccinate livestock	The student should be able to: • Selecting working equipment, tools and safety gears • Isolate sick animals • Restrain animals • Administer vaccines • Keep different records • Clean tools, equipment used and work place • Store tools and equipment	Vaccination of livestock performed according to required animal health practices.	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to perform Vaccination of livestock • Principles: The student should explain principles involved in vaccinating animals • Theories: The student should explain: - • Types of vaccine • way of vaccine storage • Route of injection of vaccine • Disease require vaccine	This element can be achieved at a work place or training institution. The following tools, equipment and protective gears are to be available: - • Set of syringe and needles • Automatic syringe • Vaccine • Cool box • crush • Freezers • Thermos • Examination gloves	
3.0 Managing farm production activities	3.1 Performing herd management practice	(a) Identifying tools and equipment	Group discussion: Guide students through manageable groups, to identifying tools and	The student should be able to: • Select tools, equipment and machines • Perform identification	Identification of tools and equipment performing according to	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to	This element can be achieved at a work place or training institution.	187

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				Process Assessment	Services Assessment	Underpinning Knowledge		
			equipment Demonstration Demonstrate to students how to identifying tools and equipment's for managerial practices. Practical work: Guide the students to identify tools and equipment's for managerial practices.	of tools and equipment	required standards	perform identification of tools and equipment. Principles: The student should explain principles involved in identifying tools and equipment Theories: The student should explain: - - Select tools or equipment for a specific job - Function of various tools and equipment's Circumstantial knowledge: Detailed knowledge about - Interpersonal skills	The following tools and machine are to be available: - - Sterilizer - Set of syringe and needles - Set of surgical forceps - Set of obstetrical forceps - Pair of scissors - Scalpel blade holders - Needle holders - speculum	
		(b) Performing castration	Brainstorming: Guide students to brainstorm on performing castration Demonstration Demonstrate to	The student should be able to: - Select tools, equipment and machines - Castrate animals - Clean tools, equipment used and work place - Store tools and	Castration performed according to required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to perform castration Principles: The student should explain	This element can be achieved at a work place or training institution. The following tools, protective gears and	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Underpinning Knowledge		
			students how to performing castration of piglet, calf, kids and lambs Practical work: By using guide sheet guide the students to perform castration of piglet, calf, kids and lambs	equipment		principles involved in performing castration Theories: The student should explain: - • Importance of castration • Procedures of castration • Circumstantial knowledge: • Detailed knowledge about • Interpersonal skills	machine are to be available: - • Set of surgical forceps • Pair of scissors • Scalpel blade holders • Needle holders • Burdizzo • Surgical gloves • Examination gloves	
		(c) Performing dehorning or disbudding	Brainstorming: Guide students to brainstorm on performing dehorning or disbudding Demonstration Demonstrate to students how to performing dehorning and disbudding of	The student should be able to: • Select tools, equipment and machines • Dehorn and disbud animals • Clean tools, equipment used and work place • Store tools and equipment	Dehorning and disbudding performed according to required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to perform dehorning and disbudding Principles: The student should explain principles involved in performing dehorning and disbudding Theories: The student	This element can be achieved at a work place or training institution. The following tools , machine and protective gears are to be available: - • Dehorner and disbudding tools	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
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			cow/bull and calf Practical Work By using guide sheet guide students to perform dehorn and disbud of cow/bull and calf			should explain: - - Procedures for dehorning or disbudding - Importance of dehorning or disbudding	- Ropes - Overalls - Over roll - Gumboots - Cotton wool - Iodine tincture - Gauze - Antibiotics	
		(d) Performing de-beaking	Brainstorming: Guide students to brainstorm on performing de-beaking Demonstration Demonstrate to students how to performing de-beaking of growers Practical work: By using guide sheet guide the students to perform de-beaking of growers	The student should be able to: - Select tools, equipment and machines - Wear safety gears - Prepare frames - Insert iron on frame - Restrain chickens - De- beak birds - Clean tools, equipment used and work place - Store tools and equipment	De-beaking performed according to required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to perform de-beaking Principles: The student should explain principles involved in performing de-beaking Theories: The student should explain: - - Importance of de-beaking - Procedures of de-beaking Circumstantial knowledge: Detailed knowledge about	This element can be achieved at a work place or training institution. The following tools ,machine and protective gears are to be available: - - Teeth clipper - De beakers - Overalls - Over roll - Gumboots - Masks - Pair of scissors - Hot iron	

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				Process Assessment	Services Assessment	Underpinning Knowledge		
						- Interpersonal skills - Animal welfare rules and regulations		
		(e) Performing hoof trimming	Brainstorming: Guide students to brainstorm on performing hoof trimming Demonstration Demonstrate to students how to performing hoof trimming of cow, bull, doe buck, ram, and donkeys Practical work: By using guide sheet guide the students to perform hoof trimming of cow, bull, doe buck, ram, and donkeys	The student should be able to: - Select tools, equipment and machines - Restrain an animal - Trim hooves - Clean tools, equipment used and work place - Store tools and equipment	Hoof trimming performed according to required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to perform hoof trimming Principles: The student should explain principles involved in performing hoof trimming Theories: The student should explain: - - Importance of hoof trimming - Meaning of hoof trimming Circumstantial knowledge: Detailed knowledge about - Animal welfare rules and regulations	This element can be achieved at a work place or training institution. The following tools, machine and protective gears are to be available: -	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Underpinning Knowledge		
		(f) Performing Identification of different livestock species	Brainstorming: Guide students to brainstorm on performing identification of different livestock species Demonstration Demonstrate to students how to performing ear tangs, ear notcher, and iron branding Practical Work By using guide sheet guide students to perform ear tangs, ear notcher, and iron branding	The student should be able to: • Select tools, equipment and machines • Restrain an animal • Perform identification of animals • Clean tools, equipment used and work place • Store tools and equipment	Identification of different livestock species performed according to required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to perform identification of different livestock species Principles: The student should explain principles involved in performing identification of different livestock species Theories: The student should explain: • Importance of identification • Method of identification • Circumstantial knowledge: Detailed knowledge about • Animal welfare rules and	This element can be achieved at a work place or training institution. The following tools , machine and protective gears are to be available: - • Ear tags • Ear tag applicator • Ear notcher • Branding iron • Ropes • Overalls • Over roll • Gumboots	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Underpinning Knowledge		
						regulations		
		(g) Performing teeth clipping	Brainstorming: Guide students to brainstorm on performing teeth clipping Demonstration Demonstrate to students how to performing teeth clipping of piglets Practical Work By using guide sheet guide students to perform teeth clipping of piglets	The student should be able to: • Select tools, equipment and machines • Restrain an animal • Perform teeth clipping • Clean tools, equipment used and work place • Store tools and equipment	Teeth clipping performed according to required standards	Knowledge evidence: Detailed knowledge of: Method used: The students should be able to explain how to perform teeth clipping Principles: The student should explain principles involved in performing teeth clipping Theories: The students should explain: - • Importance of teeth clipping • Procedures of teeth clipping Circumstantial knowledge: Detailed knowledge about • Animal welfare rules and regulations	This element can be achieved at a work place or training institution. The following tools ,machine and protective gears are to be available: -	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Underpinning Knowledge		
		(h) Perform tail docking	Brainstorming: Guide students to brainstorm on performing tail docking Demonstration Demonstrate to students how to performing tail docking of sheep Practical Work By using guide sheet guide students to perform tail docking of sheep	The student should be able to: • Select tools, equipment and machines • Restrain an animal • Perform tail docking • Clean tools, equipment used and work place • Store tools and equipment	Tail docking performed according to required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to perform docking Principles: The student should explain principles involved in performing docking Theories: The student should explain: - • Importance of docking • Procedures of docking Circumstantial knowledge: Detailed knowledge about • Animal welfare rules and regulations	This element can be achieved at a work place or training institution. The following tools ,machine and protective gears to be available: - • Overalls • Methylated spirit • Iodine tincture • Rubbing • Knife • Antibiotics • Gumboots • Teeth clipper	
		(i) Perform dittoing	Brainstorming: Guide students to brainstorm on performing dittoing Demonstration	The student should be able to: • Select tools, equipment and machines • Perform dittoing • Clean tools, equipment	Dittoing performed according to required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to perform dittoing	This element can be achieved at a work place or training institution. The following tools and machine	

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				Process Assessment	Services Assessment	Underpinning Knowledge		
			Demonstrate to students how to performing dittoing Practical Work By using guide sheet guide students to perform dittoing	used and work place • Store tools and equipment		• Principles: The student should explain principles involved in performing dittoing • Theories: The student should explain: - • Importance of dittoing • Procedures of dittoing	should be available: - • Overalls • Gumboots • Pair of scissors • Teeth clipper • De-beaker	
		(j) Shearing sheep wool.	Brainstorming: Guide students to brainstorm on shearing of sheep wool Demonstration Demonstrate to students how to performing shearing of sheep wool Practical work: By using guide sheet guide the students to	The student should be able to: • Select tools, equipment and machines • Restrain animal • Perform Shearing sheep wool • Clean tools, equipment used and work place • Store tools and equipment	Shearing sheep wool performed according to required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to perform Shearing • Principles: The student should explain principles involved in performing Shearing • Theories: The student should explain: - • Function of wool	This element can be achieved at a work place or training institution. The following tools .machine and protective gears are to be available: - • Overalls • Gumboots • Wool shear	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Underpinning Knowledge		
			perform shearing of sheep wool					
	3.2 Managing various farm records	(a) Preparing format for different farm records	Brainstorm: Guide the student to brainstorm on the concept of preparing format for different farm records Demonstration Demonstrate to students how to preparing milk, breeding and treatment records Practical work: By using guide sheet guide the students to prepare milk, breeding and treatment records	The student should be able to: • Select tools, equipment and machines • Identify different farm production records • Prepare format sheets for collection of different farm records • Record information or farm production data • Compile farm production data	Various farm records managed as per required standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to prepare format for different farm records Principles: The student should explain principles involved in preparing format for different farm records • Theories: The student should explain: - • Importance of farm records • Types of farm records (e.g. financial, diseases, feeding, reproduction etc)	This element can be achieved at a work place or training institution. The following tools, equipment, machine and protective gears are to be available: - • Computer set • Photocopier • Communication equipment • Cupboard • Safe • Tables • Chairs • Calculators • Local Purchasing Order	38

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Underpinning Knowledge		
		(b) Preparing farm reports	Brainstorming: Guide students to brainstorm on preparing farm report Demonstration Demonstrate to students how to preparing production, breeding and health report Practical work: By using guide sheet guide the students to prepare production, breeding and health report	The student should be able to • Select tools, equipment and machines • Prepare farm reports • Storage of tools and equipment • Reserve all collected farm records.	Various farm records managed as per required standards.	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to Prepare farm reports • Principles: The student should explain principles involved in Preparing farm reports • Theories: The student should explain: - • Importance of farm reports • Preparation of prepare different farm reports	This element can be achieved at a work place or training institution. The following tools, equipment, machine and protective gears are to be available: - • Computer set • Photocopier • Communication equipment • Cupboard • Safe • Tables • Chairs • Calculators	
	3.3 Managing farm business	(a) Planning farm activities	Brainstorming: Guide students to brainstorm on planning farm activities Demonstration	The student should be able to: • Select tools, equipment and machines • Plan farm activities • Budget for farm activities	Farm business managed according to required animal husbandry practices.	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to plan farm activities • Principles: The	This element can be achieved at a work place or training institution. The following tools,	75

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Underpinning Knowledge		
			Demonstrate to students how to preparing planning for production and breeding Practical work: By using guide sheet guide the students to prepare to plan for production and breeding	• Mobilize resources • Set performance standards • Execute the plan • Collect farm performance information • Evaluate execution of the plan • Store tools and equipment		student should explain principles involved in planning farm activities • Theories: The student should explain: - • Various farm activities	equipment, machine and protective gears are to be available: - • Computer set • Photocopier • Communication equipment • Tables • Chairs • Calculators • Job cards	
		(b) Preparing farm budget	Group discussion: Guide students through manageable groups, to elaborate preparing farm budget Demonstration Demonstrate to students how to preparing production budget and administration budget	The student should be able to: • Select tools, equipment and machines • Budget for farm activities • Mobilize resources • Set performance standards • Collect farm performance information • Evaluate execution of the plan • Evaluate farm	Farm business managed according to required animal husbandry practices.	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to Prepare farm budget Principles: The student should explain principles involved in Preparing farm budget Theories: The student should explain: - • Farm production parameters • Budget preparation	This element can be achieved at a work place or training institution. The following tools, equipment, machine and protective gears are to be available: - • Computer set • Photocopier • Communication equipment	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Underpinning Knowledge		
			Practical work: By using guide sheet guide the students to prepare production budget and administration budget	performance • Store tools and equipment		and action plan • Component of budget	• Chairs • Calculators • Job cards • Received Note	
		(c) Promoting farm products	Brainstorming: Guide students to brainstorm on promoting farm products Demonstration Demonstrate to students how to promoting milk, milk products, meat and hide Practical work: By using guide sheet guide the students to promoting milk, milk products, meat and hide	• The student should be able to: • Select tools, equipment and machines • Plan farm activities • Budget for farm activities • Mobilize resources • Promote markets for farm products • Perform custody of farm properties • Store tools and equipment	• Farm products promoted according to required standards	• Knowledge evidence: • Detailed knowledge of: • Method used: The student should be able to explain how to Promote farm products • Principles: The student should explain principles involved in Promoting farm products • Theories: The student should explain: - • Marketing of farm	This element can be achieved at a work place or training institution. The following tools, equipment, machine and protective gears are to be available: - • Computer set • Photocopier • Communication equipment • Cupboard • Chairs	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Underpinning Knowledge		
						products - Types of farm product produced - Benefit of promoting farm product	- Calculator - Local Purchasing	
		(d) Evaluating farm performance	Brainstorming: Guide students to brainstorm on evaluating farm performance Demonstration Demonstrate to students how to evaluating breeding and production performance Practical work: By using guide sheet guide the students to evaluate breeding and production performance	The student should be able to: - Select tools, equipment and machines - Plan farm activities - Budget for farm activities - Mobilize resources - Set performance standards - Collect farm performance information - Evaluate farm performance - Store tools and equipment	Evaluating farm performance managed according to required animal husbandry practices.	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to Evaluate farm performance Principles: The student should explain principles involved in Evaluating farm performance Theories: The student should explain: - - Strategies on execution of farm plan - Supervision of subordinates - Indicators of farm performance	This element can be achieved at a work place or training institution. The following tools, equipment, machine and protective gears are to be available: - - Computer set - Photocopier - Communication equipment - Chairs - Calculators - table	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
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	3.4 Preparing farm project proposal	(a) Carrying out analysis of farm activities	Brainstorming: Guide students to brainstorm on Carrying out analysis of farm activities Demonstration Demonstrate to students how to carrying out feasibility analysis of farm production Practical work: Guide the students to carry out feasibility analysis of farm production	The student should be able to: • Select tools, equipment and machines • Identify problem statement (Title of the project) • Analyse farm activities for the proposed project	Carrying out analysis of farm activities prepared according to set standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to carry out analysis of farm activities Principles: The trainee should explain principles involved in carrying out analysis of farm activities Theories: The student should explain: - • Aims of farm carrying analysis • Importance of carrying out farm analysis	This element can be achieved at a work place or training institution. The following tools, equipment, machine and protective gears are to be available: - • Computer set • Photocopier • Communication equipment • Cupboard • Book shelves • Safe • Tables • Chairs • Calculators	
		(b) Interpreting production parameters	Brainstorming: Guide students to brainstorm on interpreting production	The student should be able to: • Select tools, equipment and machines • Interpret production	Production parameters interpreted according to set standards	Knowledge evidence: Detailed knowledge of: Method used: The students should be able to explain how	This element can be achieved at a work place or training institution.	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Underpinning Knowledge		
			parameters Demonstration Demonstrate to students how to interpreting milk and egg production Practical work: Guide the students to interpret milk and egg production	parameters		to interpret production parameters Principles: The student should explain principles involved in interpreting production parameters Theories: The student should explain: - • Tips of Production • Factors favour production	The following tools, equipment, machine and protective gears are to be available: - • Computer set • Photocopier • Communication equipment • Book shelves • Tables • Chairs • Calculators	
		(c) Extracting information from relevant other stakeholders	Brainstorming: Guide students to brainstorm on extracting information from relevant other stakeholders Demonstration Demonstrate to students how to extracting production and	The student should be able to: • Select tools, equipment and machines • Collect secondary information from relevant stake holders • Extracting information from relevant other stakeholders	Information from relevant other stakeholders extracting according to set standards	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to extract information from relevant other stakeholders Principles: The student should explain principles involved in extracting information from relevant other	This element can be achieved at a work place or training institution. The following tools, equipment, machine and protective gears are to be available: - • computer set • Photocopier	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Underpinning Knowledge		
			marketing information Practical work: By using guide sheet guide the students to extract production and marketing information			stakeholders Theories: The trainee should explain: - - Sources of information - Method of collecting information	- Communication equipment - Cupboard - Book shelves - Safe - Chairs - Calculators	
		(d) Formulating project proposal	Brainstorm: Guide the student to brainstorm on the concept of formulating project proposal Demonstration Demonstrate to students how to formulating project proposal for poultry production Practical work: By using guide sheet guide the students to formulate project proposal for poultry	The trainee should be able to: - Identify problem statement (Title of the project) - Analyse farm activities for the proposed project - Conduct feasibility analysis - Develop project design - Write project proposal - Prepare budget for the project - Submit the proposal	Project proposal formulated according to standards required	Knowledge evidence: Detailed knowledge of: Method used: The student should be able to explain how to formulate project proposal Principles: The trainee should explain principles involved in formulating project proposal Theories: The student should explain: - Aims of developing proposal	This element can be achieved at a work place or training institution. The following tools, equipment, machine and protective gears are to be available: - - Computer set - Photocopier - Communication equipment - Cupboard - Book shelves - Safe	

Module Title (Main Competence)	Unit Title (Specific Competences)	Elements (Learning Activities)	Suggested Teaching and Learning Methods	Assessment Criteria			Training Requirements/ Suggested Resources	Number of Periods per Unit
				Process Assessment	Services Assessment	Underpinning Knowledge		
			production				• Tables • Chairs • Calculators	

References

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