

# **Ethiopian TVET-System**

## Curriculum

# ARTEFICIAL INSEMINATION LEVEL II

Based on Occupational Standard (OS)

#### **Preface**

The reformed TVET-System is an outcome-based system. It utilizes the needs of the labor market and occupational requirements from the world of work as the benchmark and standard for TVET delivery. The requirements from the world of work are analyzed and documented – taking into account international benchmarking – as occupational standards (OS).

In the reformed TVET-System, curricula and curriculum development play an important role with regard to quality driven TVET-Delivery. Curricula help to facilitate the learning process in a way, that trainees acquire the set of occupational competences (skills, knowledge and attitude) required at the working place and defined in the occupational standards (OS). Responsibility for Curriculum Development will be given to the Regional TVET-Authorities and TVET-Providers.

This curriculum has been developed by a group of experts from different Regional and federal TVET-Authorities based on the occupational standard for. It has the character of a model curriculum and is an example on how to transform the occupational requirements as defined in the respective occupational standard into an adequate curriculum.

The curriculum development process has been actively supported and facilitated by the Ministry of Education – in line with one of its mandates to provide technical support to the regions – and by the TVET-Reform Component of the Ministry of science and Higher Education.

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### **TVET-Program Design**

### 1.1. TVET-Program Title: Artificial insemination \_Level II

### 1.2. TVET-Program Description

The Program is designed to develop the necessary knowledge, skills and attitude of the learners to the standard required by the occupation. The contents of this program are in line with the occupational standard. Learners who successfully completed the Program will be qualified to work as an Artificial insemination technician with competencies elaborated in the respective OS. Graduates of the program will have the required qualification to work in the Agriculture sector in the field of Artificial Insemination.

The prime objective of this training program is to equip the learners with the identified competences specified in the OS. Graduates are therefore expected to Assist artificial Insemination Procedures, Follow up Site Quarantine Procedures, Treat Crop Residues to Feed Livestock, Comply with Industry Dairy Welfare and Assist Basic Husbandry Practice of Dairy Cattle, Assist AI Technique and Semen Handling, Assist in Performing Pregnancy Diagnosis to Livestock, Participate in Workplace Communication, Work in Team Environment, Develop Business Practice, Standardize and Sustain 3S, Assist in the Identification of Reproductive Diseases and Fertility Problems in accordance with the performance criteria described in the OS.

### 1.3. TVET-Program Learning Outcomes

The expected outputs of this program are the acquisition and implementation of the following units of competence.

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<b>AGR ATI2 01 0118</b>	Assist Artificial Insemination Procedures
<b>AGR ATI2 02 0118</b>	Follow up Site Quarantine Procedures

AGR ATI2 03 0118 Treat Crop Residues to Feed Livestock

AGR ATI2 04 0118 Comply with Industry Dairy Welfare and

AGR ATI2 05 0118 Assist Basic Husbandry Practice of Dairy Cattle

AGR ATI2 06 0118 Assist Al Technique and Semen Handling

AGR ATI2 07 0118 Assist in Performing Pregnancy Diagnosis to Livestock

AGR ATI2 08 0118 Participate in Workplace Communication

AGR ATI2 9 0118 Work in Team Environment

**AGR ATI2 10 0118** Develop Business Practice

AGR ATI2 011118 Standardize and Sustain 3S

AGR AIT2 08 0317 Assist in the Identification of Reproductive Diseases and Fertility

**Problems** 

### 1.4. Duration of the TVET-Program

The Program will have duration of 524 hours including the on-the-job practice or cooperative training time and Civic Education et al.

### 1.5. Qualification Level and Certification

Based on the descriptors elaborated on the Ethiopian National TVET Qualification Framework (NTQF) the qualification of this specific TVET Program is "Level II".

The learner can exit after successfully completing the Modules in one level and will be awarded the equivalent institutional certificate on the level completed. The learner can also exit after completing any one learning module. However, only certificate of attainment or attendance (this is institutional discretion) will be awarded.

### 1.6. Target Groups

Any citizen with or without disability who meets the entry requirements under items 1.7 and capable of participating in the learning activities is entitled to take part in the Program.

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### 1.7 Entry Requirements

The prospective participants of this program are required to possess the requirements or directive of the Federal TVET Agency.

### 1.8 Mode of Delivery

This TVET-Program is characterized as a formal Program on middle level technical skills. The mode of delivery is co-operative training. The TVET-institution and identified companies have forged an agreement to co-operate with regard to implementation of this program. The time spent by the trainees in the industry will give them enough exposure to the actual world of work and enable them to get hands-on experience.

The co-operative approach will be supported with school-based lecture-discussion, simulation and actual practice. These modalities will be utilized before the trainees are exposed to the industry environment.

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### 1.7. TVET-Program Structure

Unit of Co	mpetence	Module C	Code & Title	Learning Outcomes	Duration (In Hours)
Standardize and Sustain 3S	AGR ATI2 11 0118	Standardizing and Sustaining 3S	AGR ATI2 M 01 9 19	<ul><li>Prepare for work</li><li>Standardize 3S.</li><li>Sustain 3S.</li></ul>	35 Hours
Participate in Workplace Communication	AGR ATI2 08 0118	Participating in Workplace Communication	AGR ATI2 M02 9 19	<ul> <li>Obtain and convey         workplace information</li> <li>Participate in workplace         meetings and discussions</li> <li>Complete relevant work         related documents</li> </ul>	30 Hours
Work in Team Environment	AGR ATI2 09 0118	Working in Team Environment	AGR ATI2 M03 0919	<ul> <li>Describe team role and scope</li> <li>Identify own role and responsibility within team</li> <li>Work as a team member</li> </ul>	28 Hours
Follow up Site Quarantine Procedures	AGR ATI2 02 0118	Following up Site Quarantine Procedures	AGR ATI2 M04 0919	<ul> <li>Prepare to work in quarantine site.</li> <li>Work in quarantine site.</li> <li>Assist in maintaining site quarantine procedures.</li> <li>Respond to site quarantine breach or problem.</li> </ul>	32 Hours
Assist Basic Husbandry Practice of Dairy Cattle	AGR ATI2 05 0118	Assisting Basic Husbandry Practice of Dairy Cattle	AGR ATI2 M05 0919	<ul><li>Prepare for raising ruminant activities</li><li>Undertake raising ruminant</li></ul>	60 Hours

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				<ul> <li>work</li> <li>Handle materials and equipment</li> <li>Clean up on completion of work</li> </ul>	
Treat Crop Residues to Feed Livestock	AGR ATI2 03 0118	Treating Crop Residues to Feed Livestock	AGR ATI2 M06 0919	<ul> <li>Determine the type of crop residue to be treated.</li> <li>Determine the method of treatment</li> <li>Prepare appropriate packing material for treatment</li> <li>Complete treatment and store</li> </ul>	50 Hours
Assist Artificial Insemination Procedures	AGR ATI2 01 0118	Assist Artificial Insemination Procedures	AGR ATI2 M07 0919	<ul> <li>Assist in Al site selection and crush construction,</li> <li>Assist in collection, production and distribution of germ plasm.</li> <li>Facilitate Al works</li> <li>Record data and clean up on completion of work.</li> </ul>	62 Hours
Assist Al Technique and Semen Handling	AGR ATI2 06 0118	Assisting AI Technique and Semen Handling	AGR ATI2 M08 0919	<ul> <li>Participate in a team of semen production</li> <li>Handle semen</li> <li>Collect History</li> <li>Apply Al procedures</li> <li>Assess quality of semen</li> <li>Record data and clean up on completion of work</li> </ul>	50 Hours
Assist in Performing Pregnancy Diagnosis	AGR ATI2 07 0118	Assisting in Performing	AGR ATI2 M09 0919	Prepare dairy and equipments for pregnancy	45 Hours

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to Livestock		Pregnancy Diagnosis to Livestock		<ul><li>diagnosis</li><li>Carry out pregnancy diagnosis.</li></ul>	
Develop Business Practice	AGR ATI2 10 0118	Developing Business Practice	AGR ATI2 M10 0919	<ul> <li>Identify business opportunities and business skills</li> <li>Plan for the establishment of business operation</li> <li>Implement business development plan</li> <li>Review implementation process and take corrective measures</li> <li>Establish contact with customers and clarify needs of customer</li> <li>Develop and Maintain Business Relationship</li> </ul>	42 Hours
Comply with Industry Dairy Welfare and Quality Requirements in Livestock	AGR ATI2 04 0118	Complying with Industry Dairy Welfare and Quality Requirements in Livestock	AGR ATI2 M11 0919	<ul> <li>Apply dairy welfare and quality product practices</li> <li>Comply with standard operating procedures</li> <li>Report problems that affect dairy welfare and quality products</li> </ul>	45 Hours
Assist in the Identification of Reproductive Diseases and Fertility Problems	AGR AIT2 08 0317	Assisting in the Identification of Reproductive Diseases and Fertility Problems	AGR ATI2 M11 0919	<ul> <li>Identify symptoms of reproductive diseases and fertility problems of dairy animals</li> <li>Take appropriate measures</li> </ul>	45 Hours

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	to prevent reproductive diseases or infertility of dairies  Record data and clean up on completion of work	
Total		524

<sup>\*</sup>The time duration (Hours) indicated for the module should include all activities in and out of the TVET institution.

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#### 1.10 Institutional Assessment

Two types of evaluation will be used in determining the extent to which learning outcomes are achieved. The specific learning outcomes are stated in the modules. In assessing them, verifiable and observable indicators and standards shall be used.

The *formative assessment* is incorporated in the learning modules and form part of the learning process. Formative evaluation provides the trainee with feedback regarding success or failure in attaining learning outcomes. It identifies the specific learning errors that need to be corrected, and provides reinforcement for successful performance as well. For the teacher, formative evaluation provides information for making instruction and remedial work more effective.

**Summative Evaluation** the other form of evaluation is given when all the modules in the program have been accomplished. It determines the extent to which competence have been achieved. And, the result of this assessment decision shall be expressed in the term 'competent or not yet competent'.

Techniques or tools for obtaining information about trainees' achievement include oral or written test, demonstration and on-site observation.

### 1.11 TVET Teachers Profile

The teachers conducting this particular TVET Program are **B level** and have satisfactory practical experiences or equivalent qualifications.

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### **LEARNING MODULE-01**

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TVET-PROGRAMME TITLE: Artificial Insemination-level II

MODULE TITLE: Standardizing and Sustaining 3S

MODULE CODE: AGR ATI2 M 01 9 19

**NOMINAL DURATION: 35 Hours** 

### **MODULE DESCRIPTION:**

This module aims to provide the trainees with the Knowledge, skills, and attitudes required to standardize and sustain 3S to their own job and work area. It covers responsibility for the day- to-day operations of the workplace and ensuring that continuous improvements of Kaizen elements are initiated and institutionalized.

### **LEARNING OUTCOMES:**

At the end of the module the trainee will be able to:

LO1: Prepare for work LO2: Standardize 3S

LO3: Sustain 3S

### **MODULE CONTENTS:**

### LO1: Prepare for work

- 1.1 Job requirements.
  - 1.1.1 work instructions
  - 1.2.1 Job specifications
  - 1.3.1 Working manual.
- 1.2 OHS requirements
  - 1.3.1 Safety policies /Legislation/ regulations/codes of practice
  - 1.3.2 Safe operating procedures
  - 1.3.3 Emergency procedures
  - 1.3.4 Personal protective equipment
- 1.3 Prepare tools and equipment
  - 1.3.1 sorting activity
  - 1.3.2 set in order activity
  - 1.3.3 shining activity
- 1.4 Implementing 3S for standardize and sustain

### LO2: Standardize 3S

- 2.1 Prepare plan for implementation.
- 2.2 Tools and techniques to standardize 3s.
  - 2.2.1 Prepare tools and techniques

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- 2.2.1.1 5S Job Cycle Charts
- 2.2.1.2 Visual 5S
- 2.2.1.3 The Five Minute 5S
- 2.2.1.4 Standardization level checklist
- 2.2.1.5 5S checklist
- 2.2.1.6 The five Whys and one How approach(5W1H)
- 2.2.1.7 Suspension
- 2.2.1.8 Incorporation
- 2.2.1.9 Use Elimination
- 2.2.2 Implement tools and techniques
- 2.3 Reporting system.
- 2.4 Review standardization.

### LO3: Sustain 3S

- 3.1 Prepare plan for implementation
- 3.2 Tools and techniques to sustain 3S
  - 3.2.1 Prepare tools and techniques
    - 3.2.1.1 5S slogans
    - 3.2.2.1 5S posters
    - 3.2.3.1 5S photo exhibits & storyboards
    - 3.2.4.1 5S newsletter
    - 3.2.5.1 5S maps
    - 3.2.6.1 5S pocket manuals
    - 3.2.7.1 5S department/benchmarking tours
    - 3.2.8.1 5S months
    - 3.2.9.1 5S audit
    - 3.2.10.1 Awarding system
    - 3.2.11.1 Big cleaning day
    - 3.2.12.1 Patrolling system
  - 3.2.2 Implement tools and techniques based on procedures for sustain.
- 3.3 Reporting system.
- 3.4 Review sustains activity.

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LEARNING METHODS:					
For None	Reasonable Adjustment for Train	nees with Disability (TWD)			
Imaired Traines	Low Vision and Blind	Deaf	Hard of hearing	Physical impairment	
Lecture- discussion	<ul> <li>Provide large print text</li> <li>Prepare the lecture in Audio/video &amp; in Brail format</li> <li>Organize the class room seating arrangement to be accessible to trainees</li> <li>Write short notes on the black/white board using large text</li> <li>Make sure the luminosity of the light of class room is kept</li> <li>Use normal tone of voice</li> <li>Encourage trainees to record the lecture in audio format</li> <li>Provide Orientation on the physical feature of the work shop</li> <li>Summarize main points</li> </ul>	to be conducive for eye to eye contact  Make sure the luminosity of the light of class room is kept  Introduce new and relevant vocabularies	<ul> <li>accessible to trainees</li> <li>Speak loudly</li> <li>Ensure the attention of the trainees</li> <li>Present the lecture in video</li> </ul>	<ul> <li>Organize the class room seating arrangement to be accessible for wheelchairs users.</li> <li>Facilitate and support the trainees who have severe impairments on their upper limbs to take note</li> <li>Provide Orientation on the physical feature of the work shop</li> </ul>	

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Demonstration	<ul> <li>Conduct close follow up</li> <li>Use verbal description</li> <li>Provide special attention in the process of guidance</li> <li>facilitate the support of peer trainees</li> <li>Prepare &amp; use simulation</li> </ul>	<ul> <li>use Sign language interpreter</li> <li>Use video recorded material</li> <li>Ensure attention of the trainees</li> <li>Provide structured training</li> <li>Show clear and short method</li> <li>Use gesture</li> <li>rovide tutorial support (if necessary)</li> </ul>	<ul> <li>Illustrate in clear &amp; short method</li> <li>Use Video recorded material</li> <li>Ensure the attention of the trainees</li> <li>rovide tutorial support (if necessary)</li> <li>Facilitate and support the trainees having severe upper limbs impairment to operate equipments/ machines</li> <li>Assign peer trainees to assist</li> <li>Conduct close follow up</li> <li>rovide tutorial support (if necessary</li> </ul>
Group	<ul> <li>Facilitate the integration of trainees with group members</li> <li>Conduct close follow up</li> <li>Introduce the trainees with other group member</li> <li>Brief the thematic issues of the work</li> </ul>	<ul> <li>Use sign language interpreters</li> <li>Facilitate the integration of trainees with group members</li> <li>Conduct close follow up</li> <li>Introduce the trainees with other group member</li> </ul>	<ul> <li>❖ Facilitate the integration of trainees with group members</li> <li>❖ Conduct close follow up</li> <li>❖ Introduce the trainees with other group member</li> <li>❖ Inform the group members to speak loudly</li> </ul>

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Exercise	guidance guidance  Provide tutorial support if necessary provide special attention in the process  Intro  guid Pro  pro  pro  inter  pro  inter  inte	nce	<ul> <li>Conduct close follow up and guidance</li> <li>Provide tutorial support if necessary</li> <li>provide special attention in the process/ practical training</li> </ul>	<ul> <li>Assign peer trainees</li> <li>Use additional nominal hours if necessary</li> </ul>
Individual assignment  ASSESSMENT N	large text/Brail  Encourage the trainees to prepare and submit the assignment in large texts/Brail  Make available recorded assignment questions  Facilitate the trainees to prepare and submit the assignment in soft or hard copy	gn language interpreter e briefing /orientation on the nment e visual recorded material	rovide briefing /orientation on the assignment rovide visual recorded material	

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Written test	<ul> <li>Prepare the exam in large texts/Brail</li> <li>Use interview as an option if necessary</li> <li>Prepare the exam in audio format</li> <li>Assign human reader <ul> <li>(if necessary)</li> <li>Time extension</li> </ul> </li> </ul>	<ul> <li>❖ Use sign language interpreter</li> <li>❖ Ensure or conform whether the proper communication was conducted with the trained through the service of the sign language interpreter</li> <li>❖ Use short and clear questioning</li> <li>❖ Time extension</li> <li>❖ Prepare the exam using short sentences, multiple choices. True or False, matching and short answers</li> <li>❖ Avoid essay writing</li> <li>❖ Time extension</li> </ul>	interpreter if necessary  Prepare the examusing short sentences,	<ul> <li>Use written response as an option for the trainees having speech challenges</li> <li>Use oral response as an option to give answer for trainees having severe upper limb impairment</li> <li>Time extension for trainees having severe upper limb impairment</li> </ul>
Demonstrat ion/Observ ation	<ul> <li>Brief the instruction or provide them in large text/Brail</li> <li>Time extension</li> </ul>	<ul> <li>Use sign language interpreter</li> <li>Brief on the instruction of the exam</li> <li>Provide activity-based practical assessment method</li> <li>Time extension</li> </ul>	Brief on the instruction of the exam	<ul> <li>Provide activity based assessment</li> <li>Conduct close follow up</li> <li>Time extension</li> </ul>

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### **ASSESSMENT CRITERIA:**

### LO1: Prepare for work

- Tasks are obtained as per work instruction, work manual and job requirements.
- Check if OHS requirements (Safety policies /Legislation/ regulations/codes of practice, Safe operating procedures, Emergency procedures, Personal protective equipment) are practiced.
- Tools and equipment for sorting, set in order and shining activities are prepared.
- Check if 3S are implemented.

### LO2: Standardize 3S

- Check if implementation plan is prepared.
- Confirm if tools and techniques required to standardize 3s are prepared.
- Tools and techniques are used.
- Reports are accurately obtained.

### LO3: Sustain 3S

- Check if implementation plan is prepared.
- Confirm if tools and techniques required to sustain 3s are prepared.
- Tools and techniques are used.
- Reports are accurately obtained.

### **Annex: Resource Requirements**

	Standardizing and Sustaining 3S MODULE CODE: AGR ATI2 M 01 9 19			
Item No.	Category/Item	Description/ Specifications	Quantit y	Recommended Ratio (Item: Learner)
A.	Learning Materials			
1.	TTLM	Having operation sheet, lab test	30	1:1
2.	Textbooks			
B.	Learning Facilities & Infrastructure			
1.	Lecture Room	5*5m	1	1:25
2.	Library			
C.	Consumable Materials			
1.	Paper	A4	5rim	1:5
2.	Pencil	HB	5	1:5
3.	Pen	Ball point	5	1:5
D.	Tools and Equipments			
1.	Camera	Digital	2	1:15
2.	Broom		30	1:1
3	Paint	Different color In gallon	20 gallon	
4	Painting brush	Standard	10	1:3

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### **LEARNING MODULE-02**

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TVET PROGRAM TITLE: Artificial Insemination-level II

MODULE TITLE: Participating in workplace communications

**MODULE CODE: AGR ATI2 M02 9 19** 

**NOMINAL DURATION: 30 Hours** 

**MODULE DESCRIPTION**: The module covers the knowledge, skills and attitudes required to gather, interpret and convey information in response to workplace requirements.

### **LEARNING OUTCOMES**

### At the end of the module the learner will be able to:

- **LO-1**. Obtain and convey workplace information
- LO-2. Participate in workplace meetings and discussions
- LO-3. Complete relevant work related documents

### **MODULE CONTENTS:**

- 1. Obtain and convey workplace information
  - 1.1. Accesses specific and relevant information from appropriate sources.
  - 1.2. Use effective questioning, active listening and speaking skills
  - 1.3. Using appropriate medium to transfer information and ideas.
  - 1.4. Use appropriate non- verbal communication
  - 1.5. Identifying and following appropriate lines of communication
  - 1.6. Using defined workplace procedures for the location and storage of information
  - 1.7. Carrying out personal interaction clearly and concisely.
- 2. Participate in workplace meetings and discussions
  - 2.1. Attending team meetings on time.
  - 2.2. clearly expressing own opinions and listening of others without interruption.
  - 2.3. Making meeting inputs consistent with the meeting purpose and protocols.
  - 2.4. Conducting workplace interactions in a courteous manner.
  - 2.5. Interpreting and implementing meetings outcomes.
- 3. Complete relevant work related documents
  - 3.1. Completing range of forms relating to conditions of employment accurately and

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### legibly.

- 3.2. Recording workplace data on standard workplace forms and documents.
- 3.3. Using basic mathematical processes for routine calculations.
- 3.4. Identifying errors in recording information on forms/documents and properly acted upon.

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For None	LEARNING METHODS:  None Reasonable Adjustment for Trainees with Disability (TWD)			
Impaired Trainees	Low Vision and Blind	Deaf	Hard of hearing	Physical impairment
Lecture- discussion	<ul> <li>Provide large print text</li> <li>Prepare the lecture in Audio/video &amp; in Brail format</li> <li>Organize the class room seating arrangement to be accessible to trainees</li> <li>Write short notes on the black/white board using large text</li> <li>Make sure the luminosity of the light of class room is kept</li> <li>Use normal tone of voice</li> <li>Encourage trainees to record the lecture in audio format</li> <li>Provide Orientation on the physical feature of the work shop</li> <li>Summarize main points</li> </ul>	<ul> <li>Assign sign language interpreter</li> <li>Arrange the class room seating to be conducive for eye to eye contact</li> <li>Make sure the luminosity of the light of class room is kept</li> <li>Introduce new and relevant vocabularies</li> <li>Use short and clear sentences</li> <li>Give emphasis on visual lecture and ensure the attention of the trainees</li> <li>Avoid movement during lecture time</li> <li>Present the lecture in video format</li> <li>Summarize main points</li> </ul>	<ul> <li>Organize the class room seating arrangement to be accessible to trainees</li> <li>Speak loudly</li> <li>Ensure the attention of the trainees</li> <li>Present the lecture in video format</li> <li>Ensure the attention of the trainees</li> </ul>	<ul> <li>Organize the class room seating arrangement to be accessible for wheelchairs users.</li> <li>Facilitate and support the trainees who have severe impairments on their upper limbs to take note</li> <li>Provide Orientation on the physical feature of the work shop</li> </ul>
Demonstratio n	<ul> <li>Conduct close follow up</li> <li>Use verbal description</li> <li>Provide special attention in the</li> </ul>	<ul> <li>use Sign language interpreter</li> <li>Use video recorded material</li> <li>Ensure attention of the trainees</li> </ul>	<ul> <li>Illustrate in clear &amp; short method</li> <li>Use Video recorded material</li> </ul>	<ul> <li>Facilitate and support the trainees having severe upper limbs impairment to</li> </ul>

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Group	<ul> <li>process of guidance</li> <li>facilitate the support of peer trainees</li> <li>Prepare &amp; use simulation</li> <li>Facilitate the integration of trainees with group members</li> <li>Conduct close follow up</li> <li>Introduce the trainees with other group member</li> <li>Brief the thematic issues of the work</li> </ul>	<ul> <li>Provide structured training</li> <li>Show clear and short method</li> <li>Use gesture</li> <li>rovide tutorial support</li> <li>(if necessary)</li> <li>Use sign language interpreters</li> <li>Facilitate the integration of trainees with group members</li> <li>Conduct close follow up</li> <li>Introduce the trainees with other group member</li> </ul>	<ul> <li>Ensure the attention of the trainees</li> <li>rovide tutorial support</li> <li>(if necessary)</li> <li>Facilitate the integration of trainees with group members</li> <li>Conduct close follow up</li> <li>Introduce the trainees with other group member</li> <li>Inform the group members to speak loudly</li> </ul>	operate equipments/ machines  Assign peer trainees to assist  Conduct close follow up  rovide tutorial support (if necessary Introduce the trainees with their peers
ASSESSMENT Interview	METHODS:	❖ Use sign language interpreter	❖ Speak loudly	❖ Use written
interview		<ul> <li>Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter</li> <li>Use short and clear questioning</li> </ul>	<ul> <li>Using sign language interpreter if necessary</li> </ul>	response as an option for the trainees having speech challenges

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		❖ Time extension	
Written test	<ul> <li>Prepare the exam in large texts/Brail</li> <li>Use interview as an option if necessary</li> <li>Prepare the exam in audio format</li> <li>Assign human reader (if necessary)</li> <li>Time extension</li> </ul>	<ul> <li>Prepare the exam using short sentences, multiple choices, True or False, matching and short answers</li> <li>Avoid essay writing</li> <li>Time extension</li> </ul>	<ul> <li>Prepare the exam using short sentences, multiple choices, true or false, matching and short answers if necessary.</li> <li>Use oral response as an option to give answer for trainees having severe upper limb impairment</li> <li>Time extension for trainees having severe upper limb impairment</li> </ul>
Demonstrati on/Observati on	<ul> <li>Brief the instruction or provide them in large text/Brail</li> <li>Time extension</li> </ul>	<ul> <li>Use sign language interpreter</li> <li>Brief on the instruction of the exam</li> <li>Provide activity-based/ practical assessment method</li> <li>Time extension</li> </ul>	<ul> <li>Provide activity based assessment</li> <li>Brief on the instruction of the exam</li> <li>Use loud voice</li> <li>Time extension</li> <li>Provide activity based assessment</li> <li>Conduct close follow up</li> <li>Time extension</li> </ul>

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### ASSESSMENT CRITERIA

- LO-1. Obtain and convey workplace information
  - Specific and relevant information is accessed from appropriate sources.
  - Effective questioning, active listening and speaking skills are used to gather and convey information.
  - Appropriate medium is used to transfer information and ideas.
  - Appropriate non- verbal communication is used.
  - Appropriate lines of communication with supervisors and colleagues are identified and followed.
  - Defined workplace procedures for the location and storage of information are used.
  - Personal interaction is carried out clearly and concisely.

### LO-2. Participate in workplace meetings and discussions

- Team meetings are attended on time.
- Own opinions are clearly expressed and those of others are listened to without interruption.
- Meeting inputs are made consistent with the meeting purpose and protocols established.
- Workplace interactions are conducted in a courteous manner.
- Questions about simple routine workplace procedures and matters concerning working conditions of employment are asked and responded.
- Meetings outcomes are interpreted and implemented.

### LO-3. Complete relevant work related documents

- Range of forms relating to conditions of employment is completed accurately and legibly.
- Workplace data is recorded on standard workplace forms and documents.
- Basic mathematical processes are used for routine calculations.
- Errors in recording information on forms/documents are identified and properly acted upon.
- Reporting requirements to supervisor are completed according to organizational guidelines.

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	ANNEX: RESOURCE CONDITIONS				
	AGR ATI2 M02 9 19	: Participating in	workpla	ce communica	itions
Item No.	Category/Item	Description/ Specifications	~~~,	Recommended Ratio (Item: Trainee)	/_ a
A.	Learning Materials				
1	TTLM	Containing: LAP TEST, Information Sheet, Operation sheet	30	1:1	by the trainee
5	written and graphical instructions	Bulletins, data sheet, diagrams or sketches	1	1:30	classroom/laboratory
В.	Learning Facilities & Infrastructure				
1	Laboratory	200m <sup>2</sup>	1	1:30	by the college
2	Class room	56m <sup>2</sup>	1	1:30	by the college

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LEARNING MODULE-03	Logo of TVET
LEARNING MODULE-03	Provider

TVET PROGRAM TITLE: Artificial insemination level-II

**MODULE TITLE: Working in team environment** 

MODULE CODE: AGR ATI2 M03 0919 NOMINAL DURATION: 28 Hours

**MODULE DESCRIPTION**: The module aims to provide the learners with the knowledge, skills and right attitudes in working in team environment. It includes describing team role and scope, identifying own role and responsibility within team, and working as a team member

### **LEARNING OUTCOMES**

### At the end of the module the learner will be able to:

- LO-1. Describe team role and scope
- LO-2. Identify own role and responsibility within team
- LO-3. Work as a team member

### **MODULE CONTENTS:**

### 1. Describe team role and scope

- 1.1. Identify the role and objective of the team
- 1.2. Identifying team parameters, reporting relationships and responsibilities

### 2. Identify own role and responsibility within team

- 2.1. Identifying individual role and responsibilities within the team
- 2.2. Identify and recognize the roles and responsibility of other team members
- 2.3. Identifying and reporting relationships within team and external teams

#### 3. Work as a team member

3.1. Undertaking effective and appropriate forms of communications and interactions

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- 3.2. Making effective and appropriate contributions in workplace context
- 3.3. Observe protocols in reporting using standard operating procedures.
- 3.4. Make Contribution to the development of team work plans.

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Fan Nama	LEARNING METHODS:  For None Reasonable Adjustment for Trainees with Disability (TWD)			
For None Impaired Trainees	Low Vision and Blind	Deaf	Hard of hearing	Physical impairment
Lecture- discussion	<ul> <li>Provide large print text</li> <li>Prepare the lecture in Audio/video &amp; in Brail format</li> <li>Organize the class room seating arrangement to be accessible to trainees</li> <li>Write short notes on the black/white board using large text</li> <li>Make sure the luminosity of the light of class room is kept</li> <li>Use normal tone of voice</li> <li>Encourage trainees to record the lecture in audio format</li> <li>Provide Orientation on the physical feature of the work shop</li> <li>Summarize main points</li> </ul>	<ul> <li>Assign sign language interpreter</li> <li>Arrange the class room seating to be conducive for eye to eye contact</li> <li>Make sure the luminosity of the light of class room is kept</li> <li>Introduce new and relevant vocabularies</li> <li>Use short and clear sentences</li> <li>Give emphasis on visual lecture and ensure the attention of the trainees</li> <li>Avoid movement during lecture time</li> <li>Present the lecture in video format</li> <li>Summarize main points</li> </ul>	<ul> <li>Organize the class room seating arrangement to be accessible to trainees</li> <li>Speak loudly</li> <li>Ensure the attention of the trainees</li> <li>Present the lecture in video format</li> <li>Ensure the attention of the trainees</li> </ul>	<ul> <li>Organize the class room seating arrangement to be accessible for wheelchairs users.</li> <li>Facilitate and support the trainees who have severe impairments on their upper limbs to take note</li> <li>Provide Orientation on the physical feature of the work shop</li> </ul>
Demonstration	<ul> <li>Conduct close follow up</li> <li>Use verbal description</li> <li>Provide special attention in the</li> </ul>	<ul> <li>use Sign language interpreter</li> <li>Use video recorded material</li> <li>Ensure attention of the trainees</li> </ul>	<ul> <li>Illustrate in clear &amp; short method</li> <li>Use Video recorded material</li> </ul>	<ul> <li>Facilitate and support the trainees having severe upper limbs impairment to</li> </ul>

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Group	<ul> <li>process of guidance</li> <li>facilitate the support of peer trainees</li> <li>Prepare &amp; use simulation</li> <li>Facilitate the integration of trainees with group members</li> <li>Conduct close follow up</li> <li>Introduce the trainees with other group member</li> <li>Brief the thematic issues of the work</li> </ul>	<ul> <li>Provide structured training</li> <li>Show clear and short method</li> <li>Use gesture</li> <li>rovide tutorial support</li> <li>(if necessary)</li> <li>Use sign language interpreters</li> <li>Facilitate the integration of trainees with group members</li> <li>Conduct close follow up</li> <li>Introduce the trainees with other group member</li> </ul>	<ul> <li>Ensure the attention of the trainees</li> <li>rovide tutorial support (if necessary)</li> <li>Facilitate the integration of trainees with group members</li> <li>Conduct close follow up</li> <li>Introduce the trainees with other group member</li> <li>Inform the group members to speak loudly</li> </ul>	operate equipments/ machines  Assign peer trainees to assist  Conduct close follow up  rovide tutorial support (if necessary Introduce the trainees with their peers
ASSESSMENT I	WETHODS:	❖ Use sign language interpreter	❖ Speak loudly	❖ Use written
interview		<ul> <li>Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter</li> <li>Use short and clear questioning</li> </ul>	<ul> <li>Using sign language interpreter if necessary</li> </ul>	response as an option for the trainees having speech challenges

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		❖ Time extension		
Written test	<ul> <li>Prepare the exam in large texts/Brail</li> <li>Use interview as an option if necessary</li> <li>Prepare the exam in audio format</li> <li>Assign human reader (if necessary)</li> <li>Time extension</li> </ul>	<ul> <li>Prepare the exam using short sentences, multiple choices, True or False, matching and short answers</li> <li>Avoid essay writing</li> <li>Time extension</li> </ul>	❖ Prepare the exam using short sentences, multiple choices, true or false, matching and short answers if necessary.	<ul> <li>Use oral response as an option to give answer for trainees having severe upper limb impairment</li> <li>Time extension for trainees having severe upper limb impairment</li> </ul>
Demonstratio n/Observation	<ul> <li>Brief the instruction or provide them in large text/Brail</li> <li>Time extension</li> </ul>	<ul> <li>Use sign language interpreter</li> <li>Brief on the instruction of the exam</li> <li>Provide activity-based/ practical assessment method</li> <li>Time extension</li> </ul>	<ul> <li>Provide activity based assessment</li> <li>Brief on the instruction of the exam</li> <li>Use loud voice</li> <li>Time extension</li> </ul>	<ul> <li>Provide activity based assessment</li> <li>Conduct close follow up</li> <li>Time extension</li> </ul>

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### ASSESSMENT CRITERIA

### LO-1. Describe team role and scope

- The role and objective of the team are identified from available sources of information.
- Team parameters, reporting relationships and responsibilities are identified from team discussions and appropriate external sources.

### LO-2. Identify own role and responsibility within team

- Individual role and responsibilities within the team environment are identified.
- Roles and responsibility of other team members are identified and recognized.
- Reporting relationships within team and external to team are identified.

### LO-3. Work as a team member

- Effective and appropriate forms of communications are used and interactions undertaken with team members who contribute to known team activities and objectives.
- Effective and appropriate contributions are made to complement team activities and objectives, based on individual skills and competencies and workplace context.
- Protocols are observed in reporting using standard operating procedures.
- Contribution is made to the development of team work plans based on an understanding of team's role and objectives and individual competencies of the members.

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	ANNEX: RESOURCE CONDITIONS				
AGR	AGR ATI2 M03 0919: Working in team environment				
Item No.	Category/Item	Description/ Specifications	Quantity	(Itam:	Requirements (e.g. Maintenance)
A.	Learning Materials				
1	TTLM	Containing: LAP TEST, Information Sheet, Operation sheet	30	1:1	by the trainee
5	written and graphical instructions	Bulletins, data sheet, diagrams or sketches	1	1:30	classroom/lab oratory
В.	Learning Facilities & Infrastructure				
1	Class room	56m <sup>2</sup>	1	1:30	by the college

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Logo of TVET Provider

### **LEARNING MODULE-04**

TVET PROGRAM TITLE: Artificial Insemination Level-II

**MODULE TITLE: Following up Site Quarantine Procedures** 

**MODULE CODE: AGR ATI2 M04 0919** 

**NOMINAL DURATION: 32 Hours** 

**MODULE DESCRIPTION**: This module covers the knowledge, skills and attitude to follow up enterprise site quarantine procedures that are designed to reduce the likelihood of pathogenic organisms entering the site.

### **LEARNING OUTCOMES**

#### At the end of the module the learner will be able to:

- **Io1.** Prepare to work in guarantine site.
- **Lo2.** Work in quarantine site.
- **lo3.** Assist in maintaining site quarantine procedures.
- **lo4.** Respond to site quarantine breach or problem.

### **MODULE CONTENTS:**

- 1. Prepare to work in quarantine site.
  - 1.1. Ensure decontaminating personal and/or work vehicles.
  - 1.2. Report contact with potential contaminants.
  - 1.3. washing hands before livestock, feed and plant stock are handled.
  - 1.4. Putting on appropriate clothing and footwear before commencing work
  - 1.5. Storing 'street clothing' securely away from livestock, feed and other products.
- 2. Work in quarantine site.
  - 2.1. Handling and storing chemicals and/or medications appropriately.
  - 2.2. Keep separately and appropriately different feed mixes, soils, growing media and other products.

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- 2.3. Identifying and reporting any cases of pest and parasite infestation.
- 2.4. Identify and report any breaches of quarantine procedures.
- 2.5. Identifying and taking action on any OHS hazards.
- 2.6. Dispose all waste products.
- 2.7. Disposing all deceased livestock and unwanted biological material
- 2.8. Recording information relating to work in quarantine site
- 3. Assist in maintaining site quarantine procedures
  - 3.1. Inform all visitors about guarantine procedures
  - 3.2. Note and report any observed breaches of guarantine procedures
  - 3.3. keeping locked gates and doors where required.
  - 3.4. Installing and maintaining security fencing.
  - 3.5. Checking and ensuring vehicle deliveries to site and following decontamination
- 4. Respond to site quarantine breach or problem.
  - 4.1. Identifying and reporting the specific problem and its location.
  - 4.2. Secure problems according to enterprise procedures.
  - 4.3. Clean and disinfect quarantine site and location of breach
  - 4.4. Isolating and monitoring livestock and plant stock suspected of being exposed to contaminants.
  - 4.5. Treating and/or disposing all contaminated stock/materials.
  - 4.6. Record information about the breach or problem.

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	LEARNING METHODS:			
For None Impaired Trainees	Low Vision and Blind	nable Adjustment for Trainees with Dis	sability (TWD)  Hard of hearing	Physical impairment
Lecture- discussion	<ul> <li>Provide large print text</li> <li>Prepare the lecture in Audio/video &amp; in Brail format</li> <li>Organize the class room seating arrangement to be accessible to trainees</li> <li>Write short notes on the black/white board using large text</li> <li>Make sure the luminosity of the light of class room is kept</li> <li>Use normal tone of voice</li> <li>Encourage trainees to record the lecture in audio format</li> <li>Provide Orientation on the physical feature of the work shop</li> <li>Summarize main points</li> </ul>	ight of class room is kept  Introduce new and relevant vocabularies	<ul> <li>Organize the class room seating arrangement to be accessible to trainees</li> <li>Speak loudly</li> <li>Ensure the attention of the trainees</li> <li>Present the lecture in video format</li> <li>Ensure the attention of the trainees</li> </ul>	<ul> <li>Organize the class room seating arrangement to be accessible for wheelchairs users.</li> <li>Facilitate and support the trainees who have severe impairments on their upper limbs to take note</li> <li>Provide Orientation on the physical feature of the work shop</li> </ul>
Demonstratio n	<ul> <li>Conduct close follow up</li> <li>Use verbal description</li> <li>Provide special attention in the</li> </ul>	<ul> <li>use Sign language interpreter</li> <li>Use video recorded material</li> <li>Ensure attention of the trainees</li> </ul>	<ul> <li>Illustrate in clear &amp; short method</li> <li>Use Video recorded material</li> </ul>	<ul> <li>Facilitate and support the trainees having severe upper limbs impairment to</li> </ul>

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Group discussion	<ul> <li>process of guidance</li> <li>facilitate the support of peer trainees</li> <li>Prepare &amp; use simulation</li> <li>Facilitate the integration of trainees with group members</li> <li>Conduct close follow up</li> <li>Introduce the trainees with other group member</li> <li>Brief the thematic issues of the work</li> </ul>	<ul> <li>Provide structured training</li> <li>Show clear and short method</li> <li>Use gesture</li> <li>rovide tutorial support</li> <li>(if necessary)</li> <li>Use sign language interpreters</li> <li>Facilitate the integration of trainees with group members</li> <li>Conduct close follow up</li> <li>Introduce the trainees with other group member</li> </ul>	members  Conduct close follow up
ASSESSMENT	METHODS:		
Interview		<ul> <li>Use sign language interpreter</li> <li>Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter</li> <li>Use short and clear questioning</li> </ul>	language option for the interpreter if trainees having

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		<ul> <li>Time extension</li> </ul>		
Written test	<ul> <li>Prepare the exam in large texts/Brail</li> <li>Use interview as an option if necessary</li> <li>Prepare the exam in audio format</li> <li>Assign human reader (if necessary)</li> <li>Time extension</li> </ul>	<ul> <li>Prepare the exam using short sentences, multiple choices, True or False, matching and short answers</li> <li>Avoid essay writing</li> <li>Time extension</li> </ul>	❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers if necessary.	<ul> <li>Use oral response as an option to give answer for trainees having severe upper limb impairment</li> <li>Time extension for trainees having severe upper limb impairment</li> </ul>
Demonstrati on/Observati on	<ul> <li>Brief the instruction or provide them in large text/Brail</li> <li>Time extension</li> </ul>	<ul> <li>Use sign language interpreter</li> <li>Brief on the instruction of the exam</li> <li>Provide activity-based/ practical assessment method</li> <li>Time extension</li> </ul>	<ul> <li>Provide activity based assessment</li> <li>Brief on the instruction of the exam</li> <li>Use loud voice</li> <li>Time extension</li> </ul>	<ul> <li>Provide activity based assessment</li> <li>Conduct close follow up</li> <li>Time extension</li> </ul>

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## ASSESSMENT CRITERIA:

## LO-1. Prepare to work in quarantine site.

- Ensure personal and/or work vehicles are decontaminated before entering the quarantine site.
- Contact with potential contaminants is reported according to enterprise requirements.
- Hands are washed before livestock, feed, plant stock or other products are handled.
- Appropriate clothing and footwear is put on before commencing work and 'street clothing' is securely stored away from livestock, feed or other products

## LO-2. Work in quarantine site.

- Chemicals and/or medications are handled and stored appropriately.
- Where relevant to the production activities of the enterprise, different feed mixes, soils and/or growing media and/or other products are kept separate and appropriately marked according to enterprise procedures.
- Any cases of pest or parasite infestation are identified and reported to supervisor.
- Any breaches of guarantine procedures are identified and reported to supervisor.
- Any OHS hazards are identified and appropriate action is taken according to enterprise policy and OHS legislation and codes.
- All waste products are disposed of according to enterprise procedures.
- All deceased livestock, unwanted biological material or damaged/infected plant stock and other items are disposed of according to enterprise procedures.
- Information relating to work in quarantine site is recorded as required by the enterprise procedures.

## LO-3. Assist in maintaining site quarantine procedures

- All visitors are informed of the quarantine procedures and are provided with appropriate clothing and footwear, if required by enterprise procedures.
- Any observed breaches of guarantine procedures by visitors are noted and reported to

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supervisor.

- Gates and doors are kept locked where required by enterprise procedures and supervisor instructions.
- Where installed, security fencing is maintained according to supervisor instructions.
- Deliveries to site are checked to ensure that established procedures for vehicle decontamination, unloading and receipt and holding or storage of stock and/or supplies are followed.

## LO-4. Respond to site quarantine breach or problem.

- The specific problem and its location are identified and reported to supervisor.
- Problems are secured according to enterprise procedures.
- Quarantine site and location of breach are cleaned and disinfected as required according to the specific nature of the problem and enterprise procedures.
- Livestock, plant stock and other items suspected of being exposed to contaminants are isolated and monitored for evidence of contamination according to enterprise procedures.
- All contaminated stock/materials and other items are treated and/or disposed of according to enterprise procedures.
- Information about the breach or problem is recorded according to enterprise procedures.

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AGR	ATI2 M04 0919: Following si	te quarantine procedures		
Item No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
A.	Learning Materials			
1.	TTLM	Containing: Infor.sheet, LAP Test and Oper.sheet	30	1:1
В.	Learning Facilities &			
Б.	Infrastructure			
1.	Class room	56m2	1	1:30
2.	Animal farm	Standard	1	1:30
C.	Consumable Materials			
1.	Paper	A4	10packs	1:3
2.	Pen	10mx10m	1	1:30
3	Pencils	HP	1packs	1:30
4	Overall	Tetron	30	1:1
5	Saftey shoes	Rubber boots	30	1:1
6	Glove	Leather glove	30 pairs	1:1
7	Respiratory	Aerator	30	1:1
8	Face mask	Plastic	30	1:1
9	Drugs	Broad spectrum	As required	
10	Disinfectant	Savlon	10lit	1:3
11	Foot bath	Standard	1	
12	Rope	10m	10	1:3
13	Anthelmintic	Broad-spectrum		
14	Vaccine	Standard for different disease.		
15	Syringes	Vaccine and treatment syringe (1oml,5ml)	25 each	1:1

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## **LEARNING MODULE-05**

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TVET-PROGRAMME TITLE: Artificial Insemination Level- II

MODULE TITLE: Assisting Basic Husbandry Practice of Dairy Cattle

MODULE CODE: AGR ATI2M 05 0919

NOMINAL DURATION: 60 Hours

MODULE DESCRIPTION: This module covers the knowledge, skills and attitude required to

assist in raising dairy work under supervision of safe work practices

related to basic dairy husbandry practices...

### **LEARNING OUTCOMES:**

At the end of the module the trainee will be able to:

LO1: Prepare for raising ruminant activities

LO2: Undertake raising ruminant work

LO3: Handle materials and equipment

Lo4: Clean up on completion of work

### **MODULE CONTENTS:**

- 1. Prepare for raising ruminant activities
  - 1.1. Identifying and selecting suitable environment for raising the dairy animal.
  - 1.2. Identify required materials, tools and equipment
  - 1.3. Reporting and conducting on all materials, tools and equipment
  - 1.4. Selecting and checking suitable Personal Protective Equipment (PPE)
  - 1.5. Providing work task requirement for raising ruminants.
- 2. Undertake raising ruminant
  - 2.1. Following and clarifying Instructions and directions
  - 2.2. Undertaking dairy raising activities.
    - 2.2.1. Establishing pastures
    - 2.2.2. Create out husbandry practice of ruminant
      - 2.2.2.1. Identification
      - 2.2.2.2. Castration
      - 2.2.2.3. Milking
      - 2.2.2.4. Assist dairy in normal parturition
      - 2.2.2.5. Rear new born
  - 2.3. Estimating the age of ruminants.
  - 2.4. Observing workplace practices in the handling and disposal of materials
  - 2.5. Reporting problems or difficulties after in completing of work.

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- 3. Handle materials and equipment
  - 3.1. Handling waste material.
  - 3.2. Handling and transporting materials, tools and equipments.
  - 3.3. Maintain, clean and safe work site.
- 4. Clean up on completion of work
  - 4.1. Returning materials to store or disposing according to supervisor instructions.
  - 4.2. Cleaning, maintaining and storing tools and equipments.
  - 4.3. Reporting work outcomes to supervisor and seeing feedback.

For None	Reasonable Adjustment for Trainees with Disability (TWD)				
lmaired Traines	Low Vision and Blind	Deaf	Hard of hearing	Physical impairment	
Lecture- discussion	<ul> <li>Provide large print text</li> <li>Prepare the lecture in Audio/video &amp; in Brail format</li> <li>Organize the class room seating arrangement to be accessible to trainees</li> <li>Write short notes on the black/white board using large text</li> <li>Make sure the luminosity of the light of class room is kept</li> <li>Use normal tone of voice</li> <li>Encourage trainees to record the lecture in audio format</li> <li>Provide Orientation on the physical feature of the work shop</li> <li>Summarize main points</li> </ul>	<ul> <li>Assign sign language interpreter</li> <li>Arrange the class room seating to be conducive for eye to eye contact</li> <li>Make sure the luminosity of the light of class room is kept</li> <li>Introduce new and relevant vocabularies</li> <li>Use short and clear sentences</li> <li>Give emphasis on visual lecture and ensure the attention of the trainees</li> <li>Avoid movement during lecture time</li> <li>Present the lecture in video format</li> <li>Summarize main points</li> </ul>	<ul> <li>Organize the class room seating arrangement to be accessible to trainees</li> <li>Speak loudly</li> <li>Ensure the attention of the trainees</li> <li>Present the lecture in video format</li> <li>Ensure the attention of the trainees</li> </ul>	<ul> <li>Organize the class room seating arrangement to be accessible for wheelchairs users.</li> <li>Facilitate and support the trainees who have severe impairments on their upper limbs to take note</li> <li>Provide Orientation on the physical feature of the work shop</li> </ul>	

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Demonstration	<ul> <li>Conduct close follow up</li> <li>Use verbal description</li> <li>Provide special attention in the process of guidance</li> <li>facilitate the support of peer trainees</li> <li>Prepare &amp; use simulation</li> </ul>	<ul> <li>use Sign language interpreter</li> <li>Use video recorded material</li> <li>Ensure attention of the trainees</li> <li>Provide structured training</li> <li>Show clear and short method</li> <li>Use gesture</li> <li>rovide tutorial support (if necessary)</li> </ul>	<ul> <li>Illustrate in clear &amp; short method</li> <li>Use Video recorded material</li> <li>Ensure the attention of the trainees</li> <li>rovide tutorial support (if necessary)</li> </ul>	<ul> <li>Facilitate and support the trainees having severe upper limbs impairment to operate equipments/ machines</li> <li>Assign peer trainees to assist</li> <li>Conduct close follow up</li> <li>rovide tutorial support (if necessary</li> </ul>
Group discussion	<ul> <li>Facilitate the integration of trainees with group members</li> <li>Conduct close follow up</li> <li>Introduce the trainees with other group member</li> <li>Brief the thematic issues of the work</li> </ul>	<ul> <li>Use sign language interpreters</li> <li>Facilitate the integration of trainees with group members</li> <li>Conduct close follow up</li> <li>Introduce the trainees with other group member</li> </ul>	<ul> <li>Facilitate the integration of trainees with group members</li> <li>Conduct close follow up</li> <li>Introduce the trainees with other group member</li> <li>Inform the group members to speak loudly</li> </ul>	❖ Introduce the trainees with their peers

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Exercise	<ul> <li>Conduct close follow up and guidance</li> <li>Provide tutorial support if necessary</li> <li>provide special attention in the process</li> </ul>	<ul> <li>Conduct close follow up and guidance</li> <li>Provide tutorial support if necessary</li> <li>provide special attention in the process/practical training</li> <li>Introduce new and relevant vocabularies</li> </ul>	<ul> <li>Conduct close follow up and guidance</li> <li>Provide tutorial support if necessary</li> <li>provide special attention in the process/ practical training</li> </ul>	<ul> <li>Assign peer trainees</li> <li>Use additional nominal hours if necessary</li> </ul>
Individual assignment  ASSESSMENT N	repare the assignment questions in large text/Brail  Encourage the trainees to prepare and submit the assignment in large texts/Brail  Make available recorded assignment questions  Facilitate the trainees to prepare and submit the assignment in soft or hard copy	se sign language interpreter rovide briefing /orientation on the assignment rovide visual recorded material	rovide briefing /orientation on the assignment rovide visual recorded material	

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Interview	♣ Drop are the every in lower touts/Drail	<ul> <li>Use sign language interpreter</li> <li>Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter</li> <li>Use short and clear questioning</li> <li>Time extension</li> </ul>	<ul> <li>Speak loudly</li> <li>Using sign language interpreter if necessary</li> </ul>	❖ Use written response as an option for the trainees having speech challenges
Written test	<ul> <li>Prepare the exam in large texts/Brail</li> <li>Use interview as an option if necessary</li> <li>Prepare the exam in audio format</li> <li>Assign human reader         <ul> <li>(if necessary)</li> <li>Time extension</li> </ul> </li> </ul>	<ul> <li>Prepare the exam using short sentences, multiple choices, True or False, matching and short answers</li> <li>Avoid essay writing</li> <li>Time extension</li> </ul>	Prepare the exam using short sentences, multiple choices, True or False, matching and short answers if necessary.	<ul> <li>Use oral response as an option to give answer for trainees having severe upper limb impairment</li> <li>Time extension for trainees having severe upper limb impairment</li> </ul>
Demonstrat ion/Observ ation	<ul> <li>Brief the instruction or provide them in large text/Brail</li> <li>Time extension</li> </ul>	<ul> <li>Use sign language interpreter</li> <li>Brief on the instruction of the exam</li> <li>Provide activity-based/practical assessment method</li> <li>Time extension</li> </ul>	<ul> <li>Provide activity based assessment</li> <li>Brief on the instruction of the exam</li> <li>Use loud voice</li> <li>Time extension</li> </ul>	<ul> <li>Provide activity based assessment</li> <li>Conduct close follow up</li> <li>Time extension</li> </ul>

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### **ASSESSMENT CRITERIA:**

- 1. LO1: Prepare for raising ruminant activities
  - Suitable environment for raising the dairy animal is identified and selected
  - Required **materials**, **tools and equipment** are identified according to lists provided and/or supervisor **instructions**.
  - Checks are conducted on all materials, tools and equipment, and insufficient or faulty items are reported to supervisor.
  - Correct manual handling techniques are used when loading and unloading materials to minimize damage to self, others, load and vehicle.
  - Suitable Personal Protective Equipment (PPE) is selected and checked prior to use.
  - Work task is provided according to Occupational Health and Safety (OHS) requirements and supervisor instructions.

## LO2: Undertake raising ruminant work

- Instructions and directions provided by supervisor are followed and clarification is sought when necessary.
- Raising activities are undertaken in a safe and environmentally appropriate manner and according to enterprise guidelines.
- Age estimation of ruminant is identified according the instruction
- Enterprise policies and procedures in relation to workplace practices in the handling and disposal of materials are observed.
- Problems or difficulties in completing work to required standards or timelines are reported to supervisor.

## LO3: Handle materials and equipment

- Waste material produced during work is handled according to supervisor instructions.
- Materials, tools and equipment are handled and transported according to supervisor instructions and enterprise guidelines.
- Clean and safe work site is maintained while working

## Lo4. Clean up on completion of work

- Materials are returned to store or disposed of according to supervisor instructions.
- Tools and equipment are cleaned, maintained and stored according to manufacturer specifications and supervisor instructions.
- Work outcomes are reported to supervisor, feedback on performance is sought and any required improvements are noted for future action.

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# **Annex: Resource Requirements**

AGF	AGR ATI2 05 0919: Assisting Basic Husbandry Practice of Dairy Cattle			
Item No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Learner)
A.	Learning Materials			
1.	TTLM		25	1:1
2.	Textbooks			
3.	Reference Books			
4.	Journals/Publication/Magazines			
B.	Learning Facilities & Infrastructure			
1.	Lecture Room	5*5m	1	1:25
2.	Library		1	
C.	Consumable Materials			
1.	Paper	A4	5rim	1:5
2.	Pencil	HB	5	1:5
3.	Pen	Ball point	5	1:5
D.	Tools and Equipment			
1.	Tractor	Standard	1	1:25
2.	Disc plough	Standard	1	1:25
3	Weighing scale	(1000kg. cap.)	1	1:25
4	Tattoo pliers	Standard	5	1:5
5	Hooves Trimmer	Standard	5	1:5
6	Dehorning saw	Standard	5	1:5
7	Dehorning wire	Wire	5	1:5
8	Crush	Standard	1	1:5
9	Hammer		5	1:5
10	Castration equipment	burdizzoo	5	1:5
11	Ear tags		50	2:1
12	Branding iron	Standard	5	1:5
13	Shovel	Standard	25	1:1
14	Wheel barrow		5	1:5
14	Mineral boxes		5	1:5
15	Waterier			
16	Feeding trough	Dia C	0.5	4.4
17	Milking pails	Plastic	25	1:1
18	Milk pasteurizer	1000 L	1	1:25
19	Milk homogenizer		1	1:25

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20	Syringes	10ml,5ml	50 for each	2:1
21	Spade	standard	25	1:1
22	Fork	Standard	25	1:1
23	Hoe	Standard	25	1:1
24	Lubricant	Standard	5	1:5
25	Strip cup	Standard	5	1:5
26	Litmus paper	Standard	25	1:1
27	Towel		25	1;!
28	Fertilizer	Urea and dap	100 kg	
20	r ei tillzei		each	
29	Pasture seed and seedling	Legumes and	10kg for	
23	asture seed and seeding	grass seed	each	

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### **LEARNING MODULE-06**

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TVET PROGRAM TITLE: Artificial insemination-Level II

**MODULE TITLE: Treating Crop residues for feedstuffs** 

**MODULE CODE: AGR ATI2 M06 0919** 

**NOMINAL DURATION: 50 Hours** 

**MODULE DESCRIPTION**: The module aims to provide the learners with the knowledge, skills and right attitudes in Treating Crop residues for feedstuffs. It includes determining the type of crop residue to be treated, determining the method of treatment, preparing appropriate packing material for treatment and Completing treatment and store

### **LEARNING OUTCOMES**

## At the end of the module the learner will be able to:

- LO-1. Determine the type of crop residue to be treated.
- LO-2. Determine the method of treatment
- LO-3. Prepare appropriate packing material for treatment
- LO-4. Complete treatment and store

### **MODULE CONTENTS:**

- 1. Determine the type of crop residue to be treated.
  - 1.1. Identifying types of crop residues
  - 1.2. Determining and preparing the amount of crop residues to be treated
- 2. Determine the method of treatment
  - **2.1.** Assessing the comparative advantage of the different types of treatments.
  - **2.2.** Selecting the appropriate type of treatment that suits the enterprise requirement
  - **2.3.** Preparing and using appropriate ingredients used for treatment
- 3. Prepare appropriate packing material for treatment
  - 3.1. Determining the type of packing materials and equipment used for crop residue treatment

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3.2. Preparing the packing materials and equipment

# 4. Complete treatment and storage

- **4.1.** Selecting, using and maintaining suitable personal protective equipment (PPE)
- **4.2.** Performing treatment of the crop residue
- **4.3.** Maintaining, clean and safe area
- **4.4.** Storing the treated crop residue properly

LEARNING ME				
For None	Reasonable Adjustment for Trainees v	vith Disability (TWD)	Т	
Impaired Trainees	Low Vision and Blind	Deaf	Hard of hearing P	Physical impairment
Lecture- discussion	<ul> <li>Provide large print text</li> <li>Prepare the lecture in Audio/video &amp; in Brail format</li> <li>Organize the class room seating arrangement to be accessible to trainees</li> <li>Write short notes on the black/white board using large text</li> <li>Make sure the luminosity of the light of class room is kept</li> <li>Use normal tone of voice</li> <li>Encourage trainees to record the lecture in audio format</li> <li>Provide Orientation on the physical feature of the work shop</li> <li>Summarize main points</li> </ul>	<ul> <li>Assign sign language interpreter</li> <li>Arrange the class room seating to be conducive for eye to eye contact</li> <li>Make sure the luminosity of the light of class room is kept</li> <li>Introduce new and relevant vocabularies</li> <li>Use short and clear sentences</li> <li>Give emphasis on visual lecture and ensure the attention of the trainees</li> <li>Avoid movement during lecture time</li> <li>Present the lecture in video format</li> <li>Summarize main points</li> </ul>	room seating arrangement to be accessible to trainees  Speak loudly  Ensure the attention of the trainees  Present the lecture in video format  Ensure the attention of the	<ul> <li>Organize the class room seating arrangement to be accessible for wheelchairs users.</li> <li>Facilitate and support the trainees who have severe impairments on their upper limbs to take note</li> <li>Provide Orientation on the physical feature of the work shop</li> </ul>
Demonstratio n	❖ Conduct close follow up ❖ Lies verbal description	❖ use Sign language interpreter ❖ Lies vides recorded meterial	Illustrate in clear & short method	support the
	<ul><li>Use verbal description</li><li>Provide special attention in the</li></ul>	<ul><li>Use video recorded material</li><li>Ensure attention of the trainees</li></ul>	<ul> <li>Use Video recorded material</li> </ul>	trainees having severe upper limbs impairment to

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Group	<ul> <li>❖ facilitate the support of peer trainees</li> <li>❖ Prepare &amp; use simulation</li> <li>❖ Facilitate the integration of trainees with group members</li> <li>❖ Conduct close follow up</li> <li>❖ Introduce the trainees with other group member</li> <li>❖ Brief the thematic issues of the work</li> </ul>	<ul> <li>Provide structured training</li> <li>Show clear and short method</li> <li>Use gesture</li> <li>rovide tutorial support (if necessary)</li> <li>Use sign language interpreters</li> <li>Facilitate the integration of trainees with group members</li> <li>Conduct close follow up</li> <li>Introduce the trainees with other group member</li> </ul>	<ul> <li>Ensure the attention of the trainees</li> <li>rovide tutorial support (if necessary)</li> <li>Facilitate the integration of trainees with group members</li> <li>Conduct close follow up</li> <li>Introduce the trainees with other group member</li> <li>Inform the group members to speak loudly</li> </ul>	operate equipments/ machines  Assign peer trainees to assist  Conduct close follow up  rovide tutorial support (if necessary Introduce the trainees with their peers
ASSESSMENT Interview	METHODS:	❖ Use sign language interpreter	❖ Speak loudly	❖ Use written
into view		<ul> <li>Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter</li> <li>Use short and clear questioning</li> </ul>	<ul> <li>Using sign language interpreter if necessary</li> </ul>	response as an option for the trainees having speech challenges

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		❖ Time extension	
Written test	<ul> <li>Prepare the exam in large texts/Brail</li> <li>Use interview as an option if necessary</li> <li>Prepare the exam in audio format</li> <li>Assign human reader (if necessary)</li> <li>Time extension</li> </ul>	<ul> <li>Prepare the exam using short sentences, multiple choices, True or False, matching and short answers</li> <li>Avoid essay writing</li> <li>Time extension</li> </ul>	<ul> <li>Prepare the exam using short sentences, multiple choices, true or false, matching and short answers if necessary.</li> <li>Use oral response as an option to give answer for trainees having severe upper limb impairment</li> <li>Time extension for trainees having severe upper limb impairment</li> </ul>
Demonstrati on/Observati on	<ul> <li>Brief the instruction or provide them in large text/Brail</li> <li>Time extension</li> </ul>	<ul> <li>Use sign language interpreter</li> <li>Brief on the instruction of the exam</li> <li>Provide activity-based/ practical assessment method</li> <li>Time extension</li> </ul>	<ul> <li>Provide activity based assessment</li> <li>Brief on the instruction of the exam</li> <li>Use loud voice</li> <li>Provide activity based assessment</li> <li>Conduct close follow up</li> <li>Time extension</li> </ul>

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## ASSESSMENT CRITERIA

## LO-1. Determine the type of crop residue to be treated.

- The types of crop residues that are consumed by different species of livestock but are of less palatable and less digestible are identified.
- The amount of crop residues to be treated is determined and prepared.

## LO-2. Determine the method of treatment

- The comparative advantage of the different types of treatments is assessed.
- The appropriate type of treatment that suits the enterprise requirement is selected
- The appropriate ingredients used for treatment are prepared

## LO-3. Prepare appropriate packing material for treatment

- The type of packing materials and equipment used for crop residue treatment is determined in relation to the amount of crop residue to be prepared.
- The packing materials and equipment are prepared

## LO-4. Complete treatment and storage

- Suitable Personal Protective Equipment (PPE) are selected, used and maintained in accordance with OHS requirements.
- Treatment of the crop residue is performed according to the procedures and the enterprise guideline.
- A clean and safe area is maintained during and on treating of the crop residues in accordance with OHS and enterprise requirements.
- The treated crop residue is properly stored for a recommended time before based on the type of treatment weather condition

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#### ANNEX: RESOURCE CONDITIONS AGR ATI2 M06 0919: Treating Crop residues for feedstuffs Recommended Ratio **Description/ Specifications** Quantity Item No. Category/Item (Item: Trainee) A. **Learning Materials** Containing: LAP TEST, 1 TTLM Information Sheet, 30 1:1 Operation sheet written and graphical Bulletins, data sheet. 1 1:30 instructions diagrams or sketches Learning Facilities & В. Infrastructure 1 Laboratory 200m<sup>2</sup> 1 1:30 2 56m<sup>2</sup> 1 Class room 1:30 C. **Consumable Materials** cereal straws, maize Crop residues 100kg 1 Stover, different, types of 30:100 each hulls Graduated jug 2500ml 6 2 1:5 1 Pit Concrete/pit 1:30 3 6 4 plastic sheet Thick (200m) 1:5 5 weighing balance 50kg 1 1:30 Stick 1 1:30 6 Stirrer **Plastic** 6 1:5 7 Bucket 8 Molasses End product of sugar 10Lit 1:3 1:5 9 Fertilizer Urea 20kg 10 Water Pure water 100lit as required Salt Nacl 6kg 11 1:5 **Tools and Equipment** D. Enterprise/college 1:1 Over all Tetron 1 30 2 30 pairs Safety shoes Rubber boots 1:1 30 Pairs 3 Glove Leather 1:1 Hat Mat type 30 1:1 4 5 | Eye glass Solar eye wear 30 1:1 6 Respirator Aerator 30 1:1 Plastic Face mask 30 1:1

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## **LEARNING MODULE- 07**

TVET-PROGRAMME TITLE: Artificial Insemination Level-II

**MODULE TITLE: Assisting with Artificial Insemination Procedures** 

**MODULE CODE: AGR ATI2 M07 0919** 

**NOMINAL DURATION: 62 Hours** 

**MODULE DESCRIPTION**: This module aims to provide the learners with the knowledge, skills and right attitudes to assist in artificial insemination (AI) site selection and AI crush construction assist in AI works and record data and clean up on completion of work under the close guidance of the inseminator/supervisor

### **LEARNING OUTCOMES**

### At the end of the module the learner will be able to:

- **LO1.** Assist in artificial insemination site selection and crush construction
- LO2. Assist in collection, production, and distribution of germ plasm
- LO3. Facilitate Al work
- **LO4**. Record data and clean up on completion of work

### MODULE CONTENTS

- Assist in artificial insemination site selection and crush construction
  - 1.2. Using PPE, equipment, tools and materials
  - 1.3. Select AI site according to enterprise guidelines.
  - 1.4. Constructing AI crushes
  - 1.5. Carrying out work following the OHS requirements.
- 2. Assist in collection, production, and distribution of germ plasm
  - 2.2. Developing good sanitary practice
  - 2.3. Restraining dairy animals intended for germ plasm collection

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- 2.4. Preparing laboratory materials, equipments and tools needed for germ plasm
- 2.5. Providing work support according to OHS requirements.
- 2.6. Handling and distributing germ plasm
- 2.7. Doing work under close supervision of the supervisor.
- 3. Facilitate Al work
  - 3.2. Creating community awareness on Al advantages.
  - 3.3. Preparing and using materials and tools needed for dairy handling and restraining.
  - 3.4. Preparing, restraining and managing female dairies for Al work
- 4. Record data and clean up on completion of work
  - 4.2. Maintaining and reporting data on artificial breeding
  - 4.3. Disposing Waste materials produced during work in a designated area.
  - 4.4. Cleaning and maintaining dairy's materials and tools.
  - **4.5.** Maintain, clean and safe work site.

LEARNING METHODS:					
For None	Reasonable Adjustment for Trainees v	vith Disability (TWD)			
Impaired Trainees	Low Vision and Blind	Deaf	Hard of hearing	Physical impairment	
Lecture- discussion	<ul> <li>Provide large print text</li> <li>Prepare the lecture in Audio/video &amp; in Brail format</li> <li>Organize the class room seating arrangement to be accessible to trainees</li> <li>Write short notes on the black/white board using large text</li> <li>Make sure the luminosity of the light of class room is kept</li> <li>Use normal tone of voice</li> <li>Encourage trainees to record the lecture in audio format</li> <li>Provide Orientation on the physical feature of the work shop</li> <li>Summarize main points</li> </ul>	<ul> <li>Assign sign language interpreter</li> <li>Arrange the class room seating to be conducive for eye to eye contact</li> <li>Make sure the luminosity of the light of class room is kept</li> <li>Introduce new and relevant vocabularies</li> <li>Use short and clear sentences</li> <li>Give emphasis on visual lecture and ensure the attention of the trainees</li> <li>Avoid movement during lecture time</li> <li>Present the lecture in video format</li> <li>Summarize main points</li> </ul>	<ul> <li>Organize the class room seating arrangement to be accessible to trainees</li> <li>Speak loudly</li> <li>Ensure the attention of the trainees</li> <li>Present the lecture in video format</li> <li>Ensure the attention of the trainees</li> </ul>	<ul> <li>Organize the class room seating arrangement to be accessible for wheelchairs users.</li> <li>Facilitate and support the trainees who have severe impairments on their upper limbs to take note</li> <li>Provide Orientation on the physical feature of the work shop</li> </ul>	
Demonstratio n	<ul><li>Conduct close follow up</li><li>Use verbal description</li></ul>	<ul><li>use Sign language interpreter</li><li>Use video recorded material</li></ul>	<ul> <li>Illustrate in clear &amp; short method</li> </ul>	<ul> <li>Facilitate and support the trainees having</li> </ul>	
	Provide special attention in the	Ensure attention of the trainees	<ul> <li>Use Video recorded material</li> </ul>	severe upper limbs impairment to	

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Group	<ul> <li>process of guidance</li> <li>facilitate the support of peer trainees</li> <li>Prepare &amp; use simulation</li> <li>Facilitate the integration of trainees with group members</li> <li>Conduct close follow up</li> <li>Introduce the trainees with other group member</li> <li>Brief the thematic issues of the work</li> </ul>	<ul> <li>Provide structured training</li> <li>Show clear and short method</li> <li>Use gesture</li> <li>rovide tutorial support (if necessary)</li> <li>Use sign language interpreters</li> <li>Facilitate the integration of trainees with group members</li> <li>Conduct close follow up</li> <li>Introduce the trainees with other group member</li> </ul>	<ul> <li>Ensure the attention of the trainees</li> <li>rovide tutorial support (if necessary)</li> <li>Facilitate the integration of trainees with group members</li> <li>Conduct close follow up</li> <li>Introduce the trainees with other group member</li> <li>Inform the group members to speak loudly</li> </ul>	operate equipments/ machines  Assign peer trainees to assist  Conduct close follow up  rovide tutorial support (if necessary Introduce the trainees with their peers
ASSESSMENT Interview	WIETHOUS:	❖ Use sign language interpreter	❖ Speak loudly	❖ Use written
		<ul> <li>Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter</li> <li>Use short and clear questioning</li> </ul>	<ul> <li>Using sign language interpreter if necessary</li> </ul>	response as an option for the trainees having speech challenges

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		❖ Time extension	
Written test	<ul> <li>Prepare the exam in large texts/Brail</li> <li>Use interview as an option if necessary</li> <li>Prepare the exam in audio format</li> <li>Assign human reader (if necessary)</li> <li>Time extension</li> </ul>	<ul> <li>Prepare the exam using short sentences, multiple choices, True or False, matching and short answers</li> <li>Avoid essay writing</li> <li>Time extension</li> </ul>	<ul> <li>Prepare the exam using short sentences, multiple choices, true or false, matching and short answers if necessary.</li> <li>Use oral respon as an option to give answer for trainees having severe upper lin impairment</li> <li>Time extension trainees having severe upper lin impairment</li> </ul>
Demonstrati on/Observati on	<ul> <li>Brief the instruction or provide them in large text/Brail</li> <li>Time extension</li> </ul>	<ul> <li>Use sign language interpreter</li> <li>Brief on the instruction of the exam</li> <li>Provide activity-based/ practical assessment method</li> <li>Time extension</li> </ul>	<ul> <li>Provide activity based assessment</li> <li>Brief on the instruction of the exam</li> <li>Use loud voice</li> <li>Provide activity based assessment</li> <li>Conduct close follow up</li> <li>Time extension</li> </ul>

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### \*Assessment Criteria

## LO-1. Assist in artificial insemination site selection and crush construction

- Personal protective clothes, equipments, tools and materials are used according to the enterprise guidelines
- Al sites are selected according to enterprise guidelines.
- Crushes are constructed following the standard guide lines of the enterprise.
- Work is carried out following the OHS requirements.

## LO-2. Assist in collection, production, and distribution of germ plasm

- Good sanitary practice is developed according to the guideline
- Dairy animals intended for germ plasm collection are restrained following the standard guideline of the enterprise.
- Laboratory materials, equipments and tools needed for germ plasm collection and manipulation works are prepared and used based on the enterprise/supervisor guide lines.
- Work support is provided according to OHS requirements.
- Germ plasm is handled and distributed according to the supervisor instructions.
- Work is done under close supervision of the supervisor.

### LO-3. Facilitate Al work

- Community awareness is created on Al advantages.
- Materials and tools needed for dairy handling and restraining are prepared and used according to the instructions of the supervisor.
- Female dairies for AI work are prepared, restrained and or managed safely and humanely according to enterprise guidelines.

## LO-4. Record data and clean up on completion of work

 Data on artificial breeding are maintained and reported following the guide lines of the enterprise.

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- Waste materials produced during work are disposed in a designated area according to enterprise guidelines.
- Dairy's, materials and tools are cleaned and maintained based on the enterprise guidelines.
- A clean and safe work site is maintained according to enterprise guidelines.

## **Annex: Resource requirements**

AGR	AGR ATI2 M07 0919: Assisting with Artificial Insemination Procedures				
Item No.	Category/Item	Description/ Specifications	Quantity	Recommended, Ratio (Item: Trainee)	
A.	Learning Materials	No			
1.	TTLM	Containing: Infor.sheet, LAP Test and Oper.sheet	30	1:1	
В.	Learning Facilities &	•			
В.	Infrastructure				
1.	Class room	56m2	1	1:30	
2	Laboratory	200m2	1	1:30	
3.	Animal farm	Standad	1	1:30	
C.	Consumable Materials				
1.	Paper	Double A	20packs	30:50	
2.	Pens	Bick	5pack		
	Pencils	HP	3packs		
D.	Tools and Equipments				
1.	Artificial vagina	Standard	1	1:30	
2.	Towel	Cotton	6	1:5	
3	Electro ejaculator	Electrical	1	1:30	
4	Liquid nitrogen container	Small size (10lit)	1	1:30	
5	Gloves	Arm glove, surgical	10 each	1:3	
5	Gioves	glove			
6	Dull holder	Nose ring (steel less	6	1:5	
6	Bull holder	metal)			

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7	Al Sheath	Plastic	6	1:5
8	Crush tools	Hammer, sow, axe, nail, shovel	5 each	1:6
9	Crush	Woods/ metals	1	1:30
10	Ropes	Nylon (200m)	1	1:30
11	Insemination gun	Steel less metal	2	1:15
12	Thermometer	Digital	1	1:30
13	Thermoflaks	Fermuse	1	1:30
14	Straw cutter	Scissors	1	1:30
15	Forceps	Steel less metal	1	1:30
16	Stove	Boiler	1	1:30
17	Liquid nitrogen	Nitrogen gas	10 litt	1:30
18	Towel or tissue paper Artificial vagina	Softy	25	1:1
19	Catheters	Standard	5	1:5
20	Petri dishes	Standard	50	2:1
21	Microscope	Electron microscope	5	1:5
22	Liquid nitrogen containers	351,51	1 each	1:25

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TVET-PROGRAMME TITLE: Artificial Insemination Level-II

**MODULE TITLE: Assisting AI Technique and Seen Handling** 

**MODULE CODE: AGR ATI2 M08 0919** 

**NOMINAL DURATION: 50 Hours** 

**MODULE DESCRIPTION**: This module convers the knowledge, skills and attitude to participate in a team of semen production, handling, semen quality assessment, and record data.

## LEARNING OUTCOMES

At the end of the module the learner will be able to:

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- LO1. Participate in a team of semen production
- LO2. Handle semen
- LO3. Collect History
- **LO4.** Apply Al procedures
- LO5. Assess quality of semen
- **LO6.** Record data and clean up on completion of work

### **MODULE CONTENTS**

- 1. Participate in a team of semen production
  - 1.1. Doing Pre-collection works.
    - 1.1.1. Testing Male dairy for fertility.
    - 1.1.2. Preparing Male dairy for semen collection
    - 1.1.3. Preparing all the necessary materials, equipment, tools and utilities
  - 1.2. Processing Semen by following the enterprise guide lines.
  - 1.3. Selecting and checking Suitable Personal Protective Equipment (PPE) prior to use.

### 2. Handle semen

- 2.1. Use the required materials, tools and equipment
- 2.2. Undertaking work in a safe and environmentally appropriate manner
- 2.3. Handling Semen properly during processing, storage and distribution

## 3. Collect History

- 3.1. Gather information on sign of heat and pregnancy
- 3.2. Gathering information on last calving date, number and parity of calving
- 3.3. Identify breed type of animals
- 3.4. Collecting observable signs separately from history
- 3.5. Doing work according to Occupational Health and Safety (OHS)
- 4. Apply Al procedures

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- 4.1. Identifying history of the animal.
- 4.2. Observe sign of heat
- 4.3. Preparing and assembling material and loading semen properly.
- 4.4. Depositing semen in the uterus safely.
- 4.5. Cleaning material and disposing waste.
- 5. Assess quality of semen
  - 5.1. Assessing the quality of semen before, during, after production and at field levels.
  - 5.2. Doing Work according to Occupational Health and Safety (OHS)
- 6. Record data and clean up on completion of work
  - 6.1. Record data on semen collection.
  - 6.2. Supply information to relevant authorities to promote research and improvements.
  - 6.3. Disposing waste
  - 6.4. Keep clean-up work site, reusable equipment and materials on completion of work.

LEARNING ME	LEARNING METHODS:					
For None	Reasonable Adjustment for Trainees v	vith Disability (TWD)				
Impaired Trainees	Low Vision and Blind	Deaf	Hard of hearing	Physical impairment		
Lecture- discussion	<ul> <li>Provide large print text</li> <li>Prepare the lecture in Audio/video &amp; in Brail format</li> <li>Organize the class room seating arrangement to be accessible to trainees</li> <li>Write short notes on the black/white board using large text</li> <li>Make sure the luminosity of the light of class room is kept</li> <li>Use normal tone of voice</li> <li>Encourage trainees to record the lecture in audio format</li> <li>Provide Orientation on the physical feature of the work shop</li> <li>Summarize main points</li> </ul>	<ul> <li>Assign sign language interpreter</li> <li>Arrange the class room seating to be conducive for eye to eye contact</li> <li>Make sure the luminosity of the light of class room is kept</li> <li>Introduce new and relevant vocabularies</li> <li>Use short and clear sentences</li> <li>Give emphasis on visual lecture and ensure the attention of the trainees</li> <li>Avoid movement during lecture time</li> <li>Present the lecture in video format</li> <li>Summarize main points</li> </ul>	<ul> <li>Organize the class room seating arrangement to be accessible to trainees</li> <li>Speak loudly</li> <li>Ensure the attention of the trainees</li> <li>Present the lecture in video format</li> <li>Ensure the attention of the trainees</li> </ul>	<ul> <li>Organize the class room seating arrangement to be accessible for wheelchairs users.</li> <li>Facilitate and support the trainees who have severe impairments on their upper limbs to take note</li> <li>Provide Orientation on the physical feature of the work shop</li> </ul>		
Demonstratio n	<ul><li>Conduct close follow up</li><li>Use verbal description</li></ul>	<ul><li>use Sign language interpreter</li><li>Use video recorded material</li></ul>	<ul> <li>Illustrate in clear &amp; short method</li> </ul>	<ul> <li>Facilitate and support the trainees having</li> </ul>		
	Provide special attention in the	Ensure attention of the trainees	<ul> <li>Use Video recorded material</li> </ul>	severe upper limbs impairment to		

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Group discussion	<ul> <li>process of guidance</li> <li>facilitate the support of peer trainees</li> <li>Prepare &amp; use simulation</li> <li>Facilitate the integration of trainees with group members</li> <li>Conduct close follow up</li> <li>Introduce the trainees with other group member</li> <li>Brief the thematic issues of the work</li> </ul>	<ul> <li>Provide structured training</li> <li>Show clear and short method</li> <li>Use gesture</li> <li>rovide tutorial support (if necessary)</li> <li>Use sign language interpreters</li> <li>Facilitate the integration of trainees with group members</li> <li>Conduct close follow up</li> <li>Introduce the trainees with other group member</li> </ul>	<ul> <li>❖ Ensure the attention of the trainees</li> <li>❖ rovide tutorial support (if necessary)</li> <li>❖ Facilitate the integration of trainees with group members</li> <li>❖ Conduct close follow up</li> <li>❖ Introduce the trainees with other group member</li> <li>❖ Inform the group members to speak loudly</li> </ul>	operate equipments/ machines  Assign peer trainees to assist  Conduct close follow up  rovide tutorial support (if necessary Introduce the trainees with their peers
Interview		❖ Use sign language interpreter	❖ Speak loudly	❖ Use written
		<ul> <li>Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter</li> <li>Use short and clear questioning</li> </ul>	<ul> <li>Using sign language interpreter if necessary</li> </ul>	response as an option for the trainees having speech challenges

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		❖ Time extension		
Written test	<ul> <li>Prepare the exam in large texts/Brail</li> <li>Use interview as an option if necessary</li> <li>Prepare the exam in audio format</li> <li>Assign human reader (if necessary)</li> <li>Time extension</li> </ul>	<ul> <li>Prepare the exam using short sentences, multiple choices, True or False, matching and short answers</li> <li>Avoid essay writing</li> <li>Time extension</li> </ul>	<ul> <li>Prepare the exam using short sentences, multiple choices, true or false, matching and short answers if necessary.</li> <li>Use oral res as an option give answer trainees hav severe uppe impairment</li> <li>Time extens trainees hav severe uppe impairment</li> </ul>	to for ing r limb ion for ing
Demonstrati on/Observati on	<ul> <li>Brief the instruction or provide them in large text/Brail</li> <li>Time extension</li> </ul>	<ul> <li>Use sign language interpreter</li> <li>Brief on the instruction of the exam</li> <li>Provide activity-based/ practical assessment method</li> <li>Time extension</li> </ul>	<ul> <li>Provide activity based assessment</li> <li>Brief on the instruction of the exam</li> <li>Use loud voice</li> <li>Time extension</li> </ul>	ssment se

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### \*Assessment Criteria

## LO-1. Participate in a team of semen production

- Pre-collection works are done according to the enterprise guide lines.
- Semen is processed by following the enterprise guide lines.
- Suitable Personal Protective Equipment (PPE) are selected and checked prior to use.
- This work is likely to be carried out in a team.

### LO-2. Handle semen

- The required materials, tools and equipment are used according to enterprise guidelines.
- Work is undertaken in a safe and environmentally appropriate manner according to enterprise guidelines.
- Semen is properly handled during; processing, storage, distribution and at field levels according to the enterprise guidelines.

## LO-3. Collect History

- Information on production sign of heat, pregnancy, last calving date number and frequency /parity of calving and breed type are gathered at field levels following the enterprise or supervisor guide lines.
- Observable signs are collected separately from history
- Work is done according to Occupational Health and Safety (OHS) requirements and workplace information.

## LO-4. Apply Al procedures

- History of the animal is identified
- Animal is observed for sign of heat
- Material is prepared, assembled and semen is load properly
- Semen is deposited in the uterus safely

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Material is cleaned and waste disposed according to the enterprise guideline

## LO-5. Assess quality of semen

- The quality of semen is assessed before production, during production, after production and at field levels following the enterprise or supervisor guide lines.
- Work is done according to Occupational Health and Safety (OHS) requirements and workplace information.

## LO-6. Record data and clean up on completion of work

- Data on semen collection is recorded according to enterprise requirements.
- Information is supplied to relevant authorities to promote research and improvements in industry practice.
- Waste is disposed of according to recommended hygiene Standards.
- Work site, reusable equipments and materials are kept clean up on completion of work.

### **Annex: Resource requirements**

AGR /	AGR ATI2 M08 0919: Assisting AI Technique and Semen Handling				
Item No.	Category/Item	Description/ Specifications	Quantity	Recommended, Ratio (Item: Trainee)	
A.	Learning Materials	No			
1.	TTLM	Containing: Infor.sheet, LAP Test and Oper.sheet	30	1:1	
В.	Learning Facilities &				
Б.	Infrastructure				
1.	Class room	56m <sup>2</sup>	1	1:30	

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2	Laboratory	200m <sup>2</sup>	1	1:30
3.	Anima farm	Standad	1	1:30
C.	Consumable Materials			
1.	Paper	Double A	20packs	30:50
2.	Pens	Bick	5pack	
	Pencils	HP	3packs	
D.	Tools and Equipments			
1.	Artificial vagina	Standard	1	1:30
2.	Towel	Cotton	6	1:5
3	Electro ejaculator	Electrical	1	1:30
4	Liquid nitrogen container	Small size (10lit)	1	1:30
5	Gloves	Arm glove, surgical glove	10 each	1:3
6	Bull holder	Nose ring (steel less metal)	6	1:5
7	Al Sheath	Plastic	6	1:5
8	Crush tools	Hammer, sow, axe, nail, shovel	5 each	1:6
9	Crush	Woods/ metals	1	1:30
10	Ropes	Nylon (200m)	1	1:30
11	Insemination gun	Steel less metal	2	1:15
12	Thermometer	Digital	1	1:30
13	Thermoflaks	Fermuse	1	1:30
14	Straw cutter	Scissors	1	1:30
15	Forceps	Steel less metal	1	1:30
16	Stove	Boiler	1	1:30
17	Liquid nitrogen	Nitrogen gas	10 litt	1:30
18	Straw	Standard	100	4:1

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## **LEARNING MODULE -09**

TVET-PROGRAMME TITLE: Artificial Insemination Level-II

**MODULE TITLE: Assisting in Performing Pregnancy Diagnosis to Livestock** 

**MODULE CODE: AGR ATI2 M09 0919** 

**NOMINAL DURATION: 45 Hours** 

**MODULE DESCRIPTION**: This module cover the application of knowledge, skills and attitude in preparing the necessary equipments, materials and tools used for pregnancy diagnosis and carry out pregnancy diagnosis. Pregnancy diagnosis may be used as a diagnostic tool as an integral part of a breeding program or where there is a need to accurately establish pregnancy or absence of pregnancy for other purposes such as culling, drying off or prior to the live export of dairys.

#### **LEARNING OUTCOMES**

#### At the end of the module the learner will be able to:

- LO1. Prepare dairy and equipment for pregnancy diagnosis
- LO2. Carry out pregnancy diagnosis.

#### **MODULE CONTENTS**

- 1. Prepare dairy and equipment for pregnancy diagnosis
  - 1.1. Preparing relevant data for pregnancy diagnosis (PD).
  - 1.2. Prepare and restrain dairy safely in line with enterprise guideline.
  - 1.3. Assembling the necessary materials and equipment.
- 2. Carry out pregnancy diagnosis
  - 2.1. Using Personal Protective Equipment (PPE).

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- 2.2. Identify OHS hazards and implement suitable controls.
- 2.3. Carry out pregnancy diagnoses.
- 2.4. Identifying the stage of pregnancy.
- 2.5. Keep and report records.
- 2.6. Disposing waste.

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LEARNING ME For None	าหอบร: Reasonable Adjustment for Trainees v	vith Disability (TWD)		
Impaired Trainees	Low Vision and Blind	Deaf	Hard of hearing	Physical impairment
Lecture- discussion	<ul> <li>Provide large print text</li> <li>Prepare the lecture in Audio/video &amp; in Brail format</li> <li>Organize the class room seating arrangement to be accessible to trainees</li> <li>Write short notes on the black/white board using large text</li> <li>Make sure the luminosity of the light of class room is kept</li> <li>Use normal tone of voice</li> <li>Encourage trainees to record the lecture in audio format</li> <li>Provide Orientation on the physical feature of the work shop</li> <li>Summarize main points</li> </ul>	<ul> <li>Assign sign language interpreter</li> <li>Arrange the class room seating to be conducive for eye to eye contact</li> <li>Make sure the luminosity of the light of class room is kept</li> <li>Introduce new and relevant vocabularies</li> <li>Use short and clear sentences</li> <li>Give emphasis on visual lecture and ensure the attention of the trainees</li> <li>Avoid movement during lecture time</li> <li>Present the lecture in video format</li> <li>Summarize main points</li> </ul>	<ul> <li>Organize the class room seating arrangement to be accessible to trainees</li> <li>Speak loudly</li> <li>Ensure the attention of the trainees</li> <li>Present the lecture in video format</li> <li>Ensure the attention of the trainees</li> </ul>	<ul> <li>Organize the class room seating arrangement to be accessible for wheelchairs users.</li> <li>Facilitate and support the trainees who have severe impairments on their upper limbs to take note</li> <li>Provide Orientation on the physical feature of the work shop</li> </ul>
Demonstratio n	<ul> <li>Conduct close follow up</li> <li>Use verbal description</li> </ul>	<ul> <li>use Sign language interpreter</li> <li>Use video recorded material</li> </ul>	<ul><li>Illustrate in clear &amp; short method</li><li>Use Video</li></ul>	<ul> <li>Facilitate and support the trainees having severe upper limbs</li> </ul>
	Provide special attention in the	Ensure attention of the trainees	recorded material	impairment to

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Group discussion	<ul> <li>process of guidance</li> <li>facilitate the support of peer trainees</li> <li>Prepare &amp; use simulation</li> <li>Facilitate the integration of trainees with group members</li> <li>Conduct close follow up</li> <li>Introduce the trainees with other group member</li> <li>Brief the thematic issues of the work</li> </ul>	<ul> <li>Provide structured training</li> <li>Show clear and short method</li> <li>Use gesture</li> <li>rovide tutorial support (if necessary)</li> <li>Use sign language interpreters</li> <li>Facilitate the integration of trainees with group members</li> <li>Conduct close follow up</li> <li>Introduce the trainees with other group member</li> </ul>	<ul> <li>Ensure the attention of the trainees</li> <li>rovide tutorial support (if necessary)</li> <li>Facilitate the integration of trainees with group members</li> <li>Conduct close follow up</li> <li>Introduce the trainees with other group member</li> <li>Inform the group members to speak loudly</li> </ul>	operate equipments/ machines  Assign peer trainees to assist  Conduct close follow up  rovide tutorial support (if necessary Introduce the trainees with their peers
Interview	WIETHODS:	❖ Use sign language interpreter	❖ Speak loudly	❖ Use written
		<ul> <li>Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter</li> <li>Use short and clear questioning</li> </ul>	<ul> <li>Using sign language interpreter if necessary</li> </ul>	response as an option for the trainees having speech challenges

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		❖ Time extension	
Written test	<ul> <li>Prepare the exam in large texts/Brail</li> <li>Use interview as an option if necessary</li> <li>Prepare the exam in audio format</li> <li>Assign human reader (if necessary)</li> <li>Time extension</li> </ul>	<ul> <li>Prepare the exam using short sentences, multiple choices, True or False, matching and short answers</li> <li>Avoid essay writing</li> <li>Time extension</li> </ul>	<ul> <li>Prepare the exam using short sentences, multiple choices, true or false, matching and short answers if necessary.</li> <li>Use oral response as an option to give answer for trainees having severe upper limb impairment</li> <li>Time extension for trainees having severe upper limb impairment</li> </ul>
Demonstrati on/Observati on	<ul> <li>Brief the instruction or provide them in large text/Brail</li> <li>Time extension</li> </ul>	<ul> <li>Use sign language interpreter</li> <li>Brief on the instruction of the exam</li> <li>Provide activity-based/ practical assessment method</li> <li>Time extension</li> </ul>	<ul> <li>Provide activity based assessment</li> <li>Brief on the instruction of the exam</li> <li>Use loud voice</li> <li>Time extension</li> <li>Provide activity based assessment</li> <li>Conduct close follow up</li> <li>Time extension</li> </ul>

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## \*Assessment Criteria

- LO-1. Prepare dairy and equipments for pregnancy diagnosis
  - Relevant data for Pregnancy Diagnosis (PD) is prepared according to enterprise guidelines.
  - Dairy are prepared and restrained safely in line with enterprise guideline.
  - The necessary materials and equipments are assembled according to enterprise guidelines.

## LO-2. Carry out pregnancy diagnosis.

- Personal Protective Equipment (PPE) are used according to organization requirement.
- Occupational Health and Safety (OHS) hazards are continually identified, risks assessed and suitable controls implemented.
- Pregnancy diagnoses are carried out following pregnancy diagnosis procedures.
- The stage of pregnancy is identified following the recommended guide lines.
- Records are kept and outcomes reported according to organization requirements.
- Waste is disposed of according to recommended hygiene standards.

## Annex: Resource requirements

AGR	GR ATI2 M09 0919: Assisting in Performing Pregnancy Diagnosis to Livestock			
Item No.	Category/Item	Description/ Specifications	Quantity	Recommended, Ratio (Item: Trainee)
A.	Learning Materials	No		
1.	TTLM	Containing: Infor.sheet, LAP Test and Oper.sheet	30	1:1
В.	Learning Facilities & Infrastructure			

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1.	Class room	56m2	1	1:30
2	Laboratory	200m2	1	1:30
3.	Dairy farm	Standad	1	1:30
C.	Consumable Materials			
1.	Paper	Double A	20packs	30:50
2.	Pens	Bick	5pack	
	Pencils	HP	3packs	
D.	Tools and Equipments			
1	Towel	Cotton	6	1:5
2	Gloves	Arm glove, surgical	10 each	1:3
		glove		
3	Crush tools	Hammer, sow, axe, nail, shovel	5 each	1:6
4	Crush	Woods/ metals	1	1:30
			•	
5	Ropes	Nylon (200m)	1	1:30
6	Thermometer	Digital	1	1:30
7	Forceps	Steel less metal	1	1:30
8	Progesterone assay kits	Standard	2kits	2:15
9	Stethoscope	Standard	30	1:1
10	Ultrasonography (optional)	Standard	10	3:10
11	Vaginal speculum	Standard	10	3:10
1 1	(optional)			
12	Disinfectants	Savlon, alcohol,	25 bottle for	1:1
	D.G.I. Octavito	detergents	each	

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#### **LEARNING MODULE-10**

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TVET PROGRAM TITLE: Artificial Insemination - Level II

**MODULE TITLE: Developing Business Practice** 

**MODULE CODE: AGR ATI2 M10 0919** 

**NOMINAL DURATION: 42 Hours** 

**MODULE DESCRIPTION**: The module aims to provide the learners with the knowledge, skills and right attitudes in Developing Business Practice. It includes Identifying business Opportunity, Identifying personal business skills, Planning for establishment of business operation, Implementing establishment plan and Reviewing implementation process

#### **LEARNING OUTCOMES**

#### At the end of the module the learner will be able to:

- Lo1. Identify business opportunities and business skills
- Lo2. Plan for the establishment of business operation
- Lo3. Implement business development plan
- Lo4. Review implementation process and take corrective measures
- Lo5. Establish contact with customers and clarify needs of customer
- Lo6. Develop and Maintain Business Relationship
- 1. Identify business opportunities and business skills
  - 1.1. Discussing the concept of paradigm shift and means of divergent thinking
  - 1.2. Identifying Unusual business opportunities.
  - 1.3. Assessing and matching feasibility on business skills and personal attributes.
  - 1.4. Elaborating and experiencing new behavior on how problems can be the pivotal source of business opportunity.
  - 1.5. Discussing assistance sought with feasibility study of specialist and relevant parties.
  - 1.6. Evaluating impact of emerging or changing technology, including e-commerce, on business operations.
  - 1.7. Assessing practicability of business opportunity in line with perceived business

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risks, returns sought, personal preferences and resources available.

- 1.8. Revising Business plan in accordance with the identified opportunities.
- 2. Plan for the establishment of business operation
  - 2.1. Determining and documenting organizational structure and operations.
  - 2.2. Developing and documenting procedures to guide operations.
  - 2.3. Securing financial backing for business operation.
  - 2.4. Identifying and compiling business legal and regulatory requirements.
  - 2.5. Determining human and physical resources required to commence business operation.
  - 2.6. Developing recruitment and procurement strategies
- 3. Implement business development plan
  - 3.1. Obtaining physical and human resources to implement business operation.
  - 3.2. Establishing operational unit to support and coordinate business operation.
  - 3.3. Discussing and understanding Simulations on the development plan.
  - 3.4. Discussing and understanding implementation manual.
  - 3.5. Undertaking Marketing the business operation.
  - 3.6. Developing and implementing Monitoring process for managing operation.
  - 3.7. Maintaining legal documents carefully
  - 3.8. Keeping and updating relevant records to ensure validity and accessibility.
  - 3.9. Negotiating and securing Contractual procurement rights for goods and services.
  - 3.10. Identifying options for leasing/ownership of business premises and completing contractual.
- 4. Review implementation process and take corrective measures
  - 4.1. Developing and implementing review process for implementation of business operation.
  - 4.2. Identifying improvements in business operation and associated management process.
  - 4.3. Implementing and monitoring identified improvements for effectiveness.
- 5. Establish contact with customers and clarify needs of customer
  - 5.1. Developing and discussing persuasion strategies.
  - 5.2. Maintaining welcoming customer environment and greeting customer warmly
  - 5.3. Providing Information to satisfy customer needs.
  - 5.4. Gathering Information on customers and service history for analysis.
  - 5.5. Maintaining Customer data to ensure database relevance and currency.
  - 5.6. Assessing Customer needs accurately against the products/services of the enterprise.

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- 5.7. Documenting customer details clearly and accurately in required format.
- 5.8. Conducting negotiations in a business-like and professional manner.
- 5.9. Maximizing benefits for all parties in the negotiation through use of established techniques.
- 5.10. Communicating the results of negotiations
- 5.11. Identifying and taking-up opportunities to maintain regular contact with customers.
- 6. Develop and Maintain Business Relationship
  - 6.1. Describing / recommending features and benefits of products/services provided by the enterprise to meet customer needs.
  - 6.2. Discussing alternative sources of information/advice with the customer.
  - 6.3. pro-actively seeing, reviewing and acting upon information needed to maintain sound business relationships.
  - 6.4. Honoring agreements within the scope of individual responsibility.
  - 6.5. Making adjustments to agreements in consultation with the customer
  - 6.6. Nurturing relationships through regular contact and use of effective interpersonal and communication styles.

LEARNING ME	LEARNING METHODS:			
For None	Reasonable Adjustment for Trainees v	vith Disability (TWD)		
Impaired Trainees	Low Vision and Blind	Deaf	Hard of hearing	Physical impairment
Lecture- discussion	<ul> <li>Provide large print text</li> <li>Prepare the lecture in Audio/video &amp; in Brail format</li> <li>Organize the class room seating arrangement to be accessible to trainees</li> <li>Write short notes on the black/white board using large text</li> <li>Make sure the luminosity of the light of class room is kept</li> <li>Use normal tone of voice</li> <li>Encourage trainees to record the lecture in audio format</li> <li>Provide Orientation on the physical feature of the work shop</li> <li>Summarize main points</li> </ul>	<ul> <li>Assign sign language interpreter</li> <li>Arrange the class room seating to be conducive for eye to eye contact</li> <li>Make sure the luminosity of the light of class room is kept</li> <li>Introduce new and relevant vocabularies</li> <li>Use short and clear sentences</li> <li>Give emphasis on visual lecture and ensure the attention of the trainees</li> <li>Avoid movement during lecture time</li> <li>Present the lecture in video format</li> <li>Summarize main points</li> </ul>	<ul> <li>Organize the class room seating arrangement to be accessible to trainees</li> <li>Speak loudly</li> <li>Ensure the attention of the trainees</li> <li>Present the lecture in video format</li> <li>Ensure the attention of the trainees</li> </ul>	<ul> <li>Organize the class room seating arrangement to be accessible for wheelchairs users.</li> <li>Facilitate and support the trainees who have severe impairments on their upper limbs to take note</li> <li>Provide Orientation on the physical feature of the work shop</li> </ul>
Demonstratio n	<ul><li>Conduct close follow up</li><li>Use verbal description</li></ul>	<ul><li>use Sign language interpreter</li><li>Use video recorded material</li></ul>	<ul><li>Illustrate in clear &amp; short method</li><li>Use Video</li></ul>	<ul> <li>Facilitate and support the trainees having</li> </ul>
	Provide special attention in the	Ensure attention of the trainees	recorded material	severe upper limbs impairment to

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Group discussion	<ul> <li>process of guidance</li> <li>facilitate the support of peer trainees</li> <li>Prepare &amp; use simulation</li> <li>Facilitate the integration of trainees with group members</li> <li>Conduct close follow up</li> <li>Introduce the trainees with other group member</li> <li>Brief the thematic issues of the work</li> </ul>	<ul> <li>Provide structured training</li> <li>Show clear and short method</li> <li>Use gesture</li> <li>rovide tutorial support (if necessary)</li> <li>Use sign language interpreters</li> <li>Facilitate the integration of trainees with group members</li> <li>Conduct close follow up</li> <li>Introduce the trainees with other group member</li> </ul>	<ul> <li>Ensure the attention of the trainees</li> <li>rovide tutorial support (if necessary)</li> <li>Facilitate the integration of trainees with group members</li> <li>Conduct close follow up</li> <li>Introduce the trainees with other group member</li> <li>Inform the group members to speak loudly</li> </ul>	operate equipments/ machines  Assign peer trainees to assist  Conduct close follow up  rovide tutorial support (if necessary Introduce the trainees with their peers
Interview	WIETHODS:	❖ Use sign language interpreter	❖ Speak loudly	❖ Use written
		<ul> <li>Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter</li> <li>Use short and clear questioning</li> </ul>	<ul> <li>Using sign language interpreter if necessary</li> </ul>	response as an option for the trainees having speech challenges

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		❖ Time extension		
Written test	<ul> <li>Prepare the exam in large texts/Brail</li> <li>Use interview as an option if necessary</li> <li>Prepare the exam in audio format</li> <li>Assign human reader (if necessary)</li> <li>Time extension</li> </ul>	<ul> <li>Prepare the exam using short sentences, multiple choices, True or False, matching and short answers</li> <li>Avoid essay writing</li> <li>Time extension</li> </ul>	using short sentences, multiple choices, True or False, matching and	<ul> <li>Use oral response as an option to give answer for trainees having severe upper limb impairment</li> <li>Time extension for trainees having severe upper limb impairment</li> </ul>
Demonstrati on/Observati on	<ul> <li>Brief the instruction or provide them in large text/Brail</li> <li>Time extension</li> </ul>	<ul> <li>Use sign language interpreter</li> <li>Brief on the instruction of the exam</li> <li>Provide activity-based/ practical assessment method</li> <li>Time extension</li> </ul>	based assessment	<ul> <li>Provide activity based assessment</li> <li>Conduct close follow up</li> <li>Time extension</li> </ul>

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#### **ASSESSMENT CRITERIA**

### LO-1. Identify business opportunities and business skills

- The concept of paradigm shift and means of divergent thinking are elaborated and strategies to look beyond the boundaries are discussed.
- Unusual business opportunities are identified.
- Feasibility on business skills and personal attributes is assessed and matched against those perceived as necessary for a particular business opportunity.
- New behavior on how problems can be the pivotal source of business opportunity is elaborated and experience taken.
- Assistance sought with feasibility study of specialist and relevant parties is discussed, as required.
- Impact of emerging or changing technology, including e-commerce, on business operations is evaluated.
- Practicability of business opportunity is assessed in line with perceived business risks,
   returns sought, personal preferences and resources available.
- Business plan is revised in accordance with the identified opportunities.

# LO-2. Plan for the establishment of business operation

- Organizational structure and operations are determined and documented.
- Procedures are developed and documented to guide operations.
- Financial backing is secured for business operation.
- Business legal and regulatory requirements are identified and compiled.
- Human and physical resources required to commence business operation are determined.

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Recruitment and procurement strategies are developed.

## LO-3. Implement business development plan

- Physical and human resources are obtained to implement business operation.
- Operational unit is established to support and coordinate business operation.
- Simulations on the development plan are well discussed and understood.
- Implementation manual is discussed and understood.
- Marketing the business operation is undertaken.
- Monitoring process is developed and implemented for managing operation.
- Legal documents are carefully maintained and relevant records kept and updated to ensure validity and accessibility.
- Contractual procurement rights for goods and services including contracts with relevant people are negotiated and secured as required in accordance with the business plan.
- Options for leasing/ownership of business premises are identified and contractual arrangements completed in accordance with the business plan.

## LO-4. Review implementation process and take corrective measures

- Review process is developed and implemented for implementation of business operation.
- Improvements in business operation and associated management process are identified.
- Identified improvements are implemented and monitored for effectiveness.

#### LO-5. Establish contact with customers and clarify needs of customer

- Persuasion strategies are developed and discussed.
- Welcoming customer environment is maintained and Customer is greeted warmly according to enterprise policies and procedures.
- Information is provided to satisfy customer needs.
- Information on customers and service history is gathered for analysis.
- Customer data is maintained to ensure database relevance and currency.
- Customer needs are accurately assessed against the products/services of the enterprise.

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- Customer details are documented clearly and accurately in required format.
- Negotiations are conducted in a business-like and professional manner.
- Benefits for all parties are maximized in the negotiation through use of established techniques and in the context of establishing long term relationships.
- The results of negotiations are communicated to appropriate colleagues and stakeholders within appropriate timeframes.
- Opportunities to maintain regular contact with customers are identified and taken-up.

## LO 6- Develop and Maintain Business Relationship

- Features and benefits of products/services provided by the enterprise are described/ recommended to meet customer needs.
- Alternative sources of information/advice are discussed with the customer.
- Information needed is pro-actively sought, reviewed and acted upon to maintain sound business relationships.
- Agreements are honored within the scope of individual responsibility.
- Adjustments to agreements are made in consultation with the customer and information shared with appropriate colleagues.
- Relationships are nurtured through regular contact and use of effective interpersonal and communication styles.

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AGR	R ATI2 10 0919: Developing Business Practice				
Item No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)	
A.	Learning Materials				
1	TTLM	Containing: LAP TEST, Information Sheet, Operation sheet	30	1:1	
2	Pencil	2HB	30	1:1	
3	Pen	Bic	30	1:1	
В.	Learning Facilities & Infrastructure				
1.	Electric light	Standard	6 florescent	1:5	
2.	Library	200m <sup>2</sup>	1	1:30	
3.	Class room	56m <sup>2</sup>	1	1:30	
4.	Desktop	Dell	10	1:3	
C.	Consumable Materials		600	20:30	
1.	Paper	A <sub>4</sub>	30	1:1	
2.	Clip chart	A3	6	1:5	
3.	Marker	Art line 90	30	1:1	
D.	Tools and Equipments				
1	Calculator	Casio	30	1:1	

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#### **LEARNING MODULE-11**

#### TVET PROGRAM TITLE Artificial Insemination Level II

MODULE TITLE: Complying with Industry Dairy Welfare and Quality Requirements in

**Livestock Production Problems** 

**MODULE CODE- AGR ATI2 11 0919** 

**NOMINAL DURATION: 45 Hours** 

MODULE DESCRIPTION: This module covers the knowledge, skills and attitude of complying with industry dairy welfare and product quality requirements in the production of livestock. It requires the ability to implement dairy welfare practices, implement standard operating procedures and report problems that affect dairy welfare and dairy products. Complying with industry dairy welfare requirements requires knowledge of dairy welfare requirements, dairy production processes, Hazard Analysis Critical Control Point (HACCP) approach to quality assurance, and enterprise policies, guidelines and standard operating procedures relating to dairy welfare and quality products.

#### **LEARNING OUTCOMES**

#### At the end of the module the learner will be able to:

- LO1. Apply dairy welfare and quality product practices
- LO2. Comply with standard operating procedures
- LO3. Report problems that affect dairy welfare and quality products

#### **MODULE CONTENTS:**

- 1. Apply dairy welfare and quality product practices
  - 1.1. Determining element of the industry dairy welfare and quality product requirements.
    - 1.1.1. Determine Housing accommodation for livestock.
    - 1.1.2. Determine Health and distress of animal
    - 1.1.3. Transporting of livestock.
    - 1.1.4. Provide food with diet containing adequate nutrients.

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- 1.2. Identifying hazards to dairy welfare
- 1.3. Determining critical control points for work
- 1.4. Complete record keeping on dairy welfare and quality products
- 2. Comply with standard operating procedures
  - 2.1. Implementing standard operating procedures to dairy welfare requirements
  - 2.2. Reporting non-conformance requirements to supervisor
- 3. Report problems that affect dairy welfare and quality products
  - 3.1. Recognizing potential and existing dairy welfare and quality product problems.
  - 3.2. Identifying instances of dairy welfare and quality products problems.
  - 3.3. Reporting variation and potential problems

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	LEARNING METHODS:			
For None Impaired Trainees	Low Vision and Blind	onable Adjustment for Trainees with D Deaf	Hard of hearing	Physical impairment
Lecture- discussion	<ul> <li>Provide large print text</li> <li>Prepare the lecture in Audio/video &amp; in Brail format</li> <li>Organize the class room seating arrangement to be accessible to trainees</li> <li>Write short notes on the black/white board using large text</li> <li>Make sure the luminosity of the light of class room is kept</li> <li>Use normal tone of voice</li> <li>Encourage trainees to record the lecture in audio format</li> <li>Provide Orientation on the physical feature of the work shop</li> <li>Summarize main points</li> </ul>	<ul> <li>Assign sign language interpreter</li> <li>Arrange the class room seating to be conducive for eye to eye contact</li> <li>Make sure the luminosity of the light of class room is kept</li> <li>Introduce new and relevant vocabularies</li> <li>Use short and clear sentences</li> <li>Give emphasis on visual lecture and ensure the attention of the trainees</li> <li>Avoid movement during lecture time</li> <li>Present the lecture in video format</li> <li>Summarize main points</li> </ul>	accessible to trainees  Speak loudly  Ensure the	<ul> <li>Organize the class room seating arrangement to be accessible for wheelchairs users.</li> <li>Facilitate and support the trainees who have severe impairments on their upper limbs to take note</li> <li>Provide Orientation on the physical feature of the work shop</li> </ul>
Demonstratio n	<ul> <li>Conduct close follow up</li> <li>Use verbal description</li> <li>Provide special attention in the</li> </ul>	<ul> <li>use Sign language interpreter</li> <li>Use video recorded material</li> <li>Ensure attention of the trainees</li> </ul>	<ul> <li>Illustrate in clear &amp; short method</li> <li>Use Video recorded material</li> </ul>	Facilitate and support the trainees having severe upper limbs impairment to operate equipments/

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	process of guidance  ❖ facilitate the support of peer trainees  ❖ Prepare & use simulation	<ul> <li>Provide structured training</li> <li>Show clear and short method</li> <li>Use gesture</li> <li>rovide tutorial support</li> <li>(if necessary)</li> </ul>	<ul> <li>Ensure the attention of the trainees</li> <li>rovide tutorial support (if necessary)</li> </ul>	machines  Assign peer trainees to assist  Conduct close follow up  rovide tutorial support (if necessary
Group discussion	<ul> <li>Facilitate the integration of trainees with group members</li> <li>Conduct close follow up</li> <li>Introduce the trainees with other group member</li> <li>Brief the thematic issues of the work</li> </ul>	<ul> <li>Use sign language interpreters</li> <li>Facilitate the integration of trainees with group members</li> <li>Conduct close follow up</li> <li>Introduce the trainees with other group member</li> </ul>	<ul> <li>Facilitate the integration of trainees with group members</li> <li>Conduct close follow up</li> <li>Introduce the trainees with other group member</li> <li>Inform the group members to speak loudly</li> </ul>	Introduce the trainees with their peers
ASSESSMENT	METHODS:			
Interview		<ul> <li>Use sign language interpreter</li> <li>Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter</li> <li>Use short and clear questioning</li> <li>Time extension</li> </ul>	language interpreter if	<ul> <li>Use written response as an option for the trainees having speech challenges</li> </ul>

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Written test	<ul> <li>Prepare the exam in large texts/Brail</li> <li>Use interview as an option if necessary</li> <li>Prepare the exam in audio format</li> <li>Assign human reader (if necessary)</li> <li>Time extension</li> </ul>	sentences, multiple choices. True	using short	an option to give answer for trainees having severe upper limb impairment  Time extension for
Demonstrati on/Observati on	<ul> <li>Brief the instruction or provide them in large text/Brail</li> <li>Time extension</li> </ul>	<ul> <li>Use sign language interpreter</li> <li>Brief on the instruction of the exam</li> <li>Provide activity-based/ practical assessment method</li> <li>Time extension</li> </ul>	<ul> <li>Provide activity based assessment</li> <li>Brief on the instruction of the exam</li> <li>Use loud voice</li> <li>Time extension</li> </ul>	<ul> <li>Provide activity based assessment</li> <li>Conduct close follow up</li> <li>Time extension</li> </ul>

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#### **ASSESSMENT CRITERIA:**

## LO-1. Apply dairy welfare and quality product practices

- Element of the industry dairy welfare and quality product requirements are determined.
- Hazards to dairy welfare are identified for work area according to enterprise guidelines and standard operating procedures.
- Critical control points for work area are determined according to workplace procedures.
- Record keeping on dairy welfare and quality products are completed according to industry Quality Assurance (QA) requirements.

## LO-2. Comply with standard operating procedures

- Standard operating procedures in respect to dairy welfare requirements are implemented in accordance with enterprise requirements.
- Non-conformance is reported to supervisor according to enterprise/industry requirements.
- Corrective action is taken in accordance with enterprise policy and procedures.

#### LO-3. Report problems that affect dairy welfare and quality products

- Potential or existing dairy welfare and quality product problems are recognized.
- Instances of problems of dairy welfare and quality products are identified from specifications or work instructions.
- Variation and potential problems are reported to supervisor/ manager according to enterprise guidelines.

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Item No.	Category/Item	Description/ Specifications	( )Hantity	Recommended Ratio (Item: Trainee)
A.	Learning Materials			
1	TTLM	Containing: LAP TEST, Information Sheet, Operation sheet	30	1:1
2	Pencil	2HB	30	1:1
	Pen	Bic	30	1:1
В.	Learning Facilities & Infrastructure			
1.	Electric light	Standard	6 florescent	1:5
2.	Library	200m <sup>2</sup>	1	1:30
3.	Class room	56m <sup>2</sup>	1	1:30
4.	Desktop	Dell	10	1:3
C.	Consumable Materials		600	20:30
1.	Paper	A <sub>4</sub>	30	1:1
2.	Clip chart	A3	6	1:5
3.	Marker	Art line 90	30	1:1
D.	Tools and Equipments			
1	feeds	Concentrate ,roughage		Adiblitum
2	Exercising yard	standard	1	1:30
3	Bedding material	Straw, mats		
4	Clinic	Standard	1	1:30

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#### **LEARNING MODULE-12**

TVET PROGRAM TITLE: Artificial Insemination Level-II

MODULE TITLE: Assisting in the Identification of Reproductive Diseases and Fertility

**Problems** 

**MODULE CODE: AGR ATI2 M12 0919** 

**NOMINAL DURATION: 45 Hours** 

**MODULE DESCRIPTION**: This module requires the application of knowledge, skills and attitude to take appropriate measures so as to prevent the prevailing reproductive diseases or other infertility of dairy's. Competency requires an awareness of legislative requirements with regard to dairy welfare and ethics.

#### **LEARNING OUTCOMES**

#### At the end of the module the learner will be able to:

- **lo1**. Identify symptoms of reproductive diseases and fertility problems of dairy animals
- **Lo2**. Take appropriate measures to prevent reproductive diseases or infertility of dairies
- **Io3**. Record data and clean up on completion of work

#### **MODULE CONTENTS:**

- 1. Identify symptoms of reproductive diseases and fertility problems of dairy animals
  - 1.1. Identifying symptoms of reproductive disease
  - 1.2. Distinguishing signs of infertility
- 2. Take appropriate measures to prevent reproductive diseases or infertility of dairies
  - 2.1. Taking measures to prevent the transmission of zoonosis and venereal diseases.
  - Recognizing existing and potential hazards in the workplace
  - 2.3. Selecting personal protective clothing and equipment
- 3. Record data and clean up on completion of work
  - 3.1. Keeping and reporting infertility information based on the observed signs of diseases.
  - 3.2. Disposing wastes according to recommended hygiene standards.

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For None	Poor	LEARNING METHODS: sonable Adjustment for Trainees with Disa	phility (TWD)	
Impaired Trainees	Low Vision and Blind	Deaf	Hard of hearing	Physical impairment
Lecture- discussion	<ul> <li>Provide large print text</li> <li>Prepare the lecture in Audio/video &amp; in Brail format</li> <li>Organize the class room seating arrangement to be accessible to trainees</li> <li>Write short notes on the black/white board using large text</li> <li>Make sure the luminosity of the light of class room is kept</li> <li>Use normal tone of voice</li> <li>Encourage trainees to record the lecture in audio format</li> <li>Provide Orientation on the physical feature of the work shop</li> <li>Summarize main points</li> </ul>	<ul> <li>Assign sign language interpreter</li> <li>Arrange the class room seating to be conducive for eye to eye contact</li> <li>Make sure the luminosity of the light of class room is kept</li> <li>Introduce new and relevant vocabularies</li> <li>Use short and clear sentences</li> <li>Give emphasis on visual lecture and ensure the attention of the trainees</li> <li>Avoid movement during lecture time</li> <li>Present the lecture in video format</li> <li>Summarize main points</li> </ul>	<ul> <li>Organize the class room seating arrangement to be accessible to trainees</li> <li>Speak loudly</li> <li>Ensure the attention of the trainees</li> <li>Present the lecture in video format</li> <li>Ensure the attention of the trainees</li> </ul>	<ul> <li>Organize the class room seating arrangement to be accessible for wheelchairs users.</li> <li>Facilitate and support the trainees who have severe impairments on their upper limbs to take note</li> <li>Provide Orientation on the physical feature of the work shop</li> </ul>
Demonstration	<ul> <li>Conduct close follow up</li> <li>Use verbal description</li> <li>Provide special attention in the process of guidance</li> <li>facilitate the support of peer trainees</li> </ul>	<ul> <li>use Sign language interpreter</li> <li>Use video recorded material</li> <li>Ensure attention of the trainees</li> <li>Provide structured training</li> </ul>	<ul> <li>Illustrate in clear &amp; short method</li> <li>Use Video recorded material</li> <li>Ensure the attention of the trainees</li> </ul>	<ul> <li>Facilitate and support the trainees having severe upper limbs impairment to operate equipments/ machines</li> <li>Assign peer trainees</li> </ul>

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	❖ Prepare & use simulation	<ul> <li>Show clear and short method</li> <li>Use gesture</li> <li>rovide tutorial support</li> <li>(if necessary)</li> </ul>	rovide tutorial support (if necessary)	to assist  Conduct close follow up  rovide tutorial support (if necessary
Group discussion	<ul> <li>Facilitate the integration of trainees with group members</li> <li>Conduct close follow up</li> <li>Introduce the trainees with other group member</li> <li>Brief the thematic issues of the work</li> </ul>	<ul> <li>Use sign language interpreters</li> <li>Facilitate the integration of trainees with group members</li> <li>Conduct close follow up</li> <li>Introduce the trainees with other group member</li> </ul>	<ul> <li>Facilitate the integration of trainees with group members</li> <li>Conduct close follow up</li> <li>Introduce the trainees with other group member</li> <li>Inform the group members to speak loudly</li> </ul>	Introduce the trainees with their peers
ASSESSMENT M Interview	ETHODS:	❖ Use sign language interpreter	❖ Speak loudly	❖ Use written
IIITGI VIGW		<ul> <li>Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter</li> <li>Use short and clear questioning</li> <li>Time extension</li> </ul>		response as an option for the trainees having speech challenges
Written test	<ul> <li>Prepare the exam in large texts/Brail</li> <li>Use interview as an option if necessary</li> <li>Prepare the exam in audio format</li> </ul>	<ul> <li>Prepare the exam using short sentences, multiple choices, True or False, matching and short answers</li> <li>Avoid essay writing</li> <li>Time extension</li> </ul>	Prepare the exam using short sentences, multiple choices, True or False, matching and short answers if	<ul> <li>Use oral response as an option to give answer for trainees having severe upper limb impairment</li> <li>Time extension for</li> </ul>

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	<ul><li>Assign human reader (if necessary)</li><li>Time extension</li></ul>		necessary.	trainees having severe upper limb impairment
Demonstratio n/Observation	<ul> <li>Brief the instruction or provide them in large text/Brail</li> <li>Time extension</li> </ul>	<ul> <li>Use sign language interpreter</li> <li>Brief on the instruction of the exam</li> <li>Provide activity-based/ practical assessment method</li> <li>Time extension</li> </ul>	<ul> <li>Provide activity based assessment</li> <li>Brief on the instruction of the exam</li> <li>Use loud voice</li> <li>Time extension</li> </ul>	<ul> <li>Provide activity based assessment</li> <li>Conduct close follow up</li> <li>Time extension</li> </ul>

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#### ASSESSMENT CRITERIA:

## LO-1. Identify symptoms of reproductive diseases and fertility problems of dairy animals

- Symptoms of reproductive disease should be identified according to enterprise instructions with close supervision
- Signs of infertility are distinguished according to enterprise instructions with close supervision

## LO-2. Take appropriate measures to prevent reproductive diseases or infertility of dairies

- Appropriate measures are taken to prevent the transmission of zoonosis and venereal diseases according to the enterprise guide lines.
- Signs of infertility and disease are distinguished according to enterprise instructions.
- Advice is provided to beneficiaries in accordance to the enterprise guidelines.
- Existing and potential hazards in the workplace are recognized, risk assessed and controlled according to OHS requirements.
- Personal protective clothing and equipment are selected, used and maintained according to enterprise guidelines.

#### LO-3. Record data and clean up on completion of work

- Infertility information is kept and reported based on the observed signs of diseases.
- Waste is disposed of according to recommended hygiene standards.

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Assisting in the Identification of Reproductive Diseases and Fertility Problems  MODULE CODE: AGR ATI2 M12 0919						
Item No.	Category/Item	Description/ Specifications	Quantity	Recommende d Ratio (Item: Trainee)		
A.	Learning Materials					
1.	TTLM	Containing: Infor.sheet, LAP Test and Oper.sheet	30	1:1		
В.	Learning Facilities &					
<b>D</b> .	Infrastructure					
1.	Class room	56m <sup>2</sup>	1	1:30		
2.	Dairy farm	Standard	1	1:30		
C.	Consumable Materials					
1.	Paper	A4	10packs	1:3		
2.	Pen	10mx10m	1	1:30		
3	Pencils	HP	1packs	1:30		
4	Overall	Tetron	30	1:1		
5	Saftey shoes	Rubber boots	30	1:1		
6	Glove	Leather glove	30 pairs	1:1		
7	Respiratory	Aerator	30	1:1		
8	Face mask	Plastic	30	1:1		
9	Drugs	Broad spectrum	As required			
10	Disinfectant	Savlon, alcohol(95%,75%), iodine,	As required	As required		

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# **Acknowledgement**

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This model curriculum was developed on the September, 2019 at Bahirdar, Ethiopia.

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