

K to 12 BASIC EDUCATION CURRICULUM
JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL - TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK
AGRI-FISHERY ARTS – ARTIFICIAL INSEMINATION: LARGE RUMINANTS

These are the list of specializations and their pre-requisites.

	Specialization	Number of Hours	Pre-requisite
1.	Animal Production (NC II)	480 hours	
2.	Aquaculture (NC II)	320 hours	
3.	Artificial Insemination (Ruminants) (NC II)	160 hours	Animal Production
4.	Artificial Insemination (Swine) (NC II)	160 hours	Animal Production
5.	Crop Production (NC I)	320 hours	
6.	Fish Nursery Operation (NC II)	160 hours	
7.	Fish or Shrimp Grow Out Operation (Non NC)	160 hours	Aquaculture
8.	Fish Wharf Operation (NC I)	160 hours	Fish or Shrimp Grow Out Operation
9.	Food (Fish) Processing (NC II)	640 hours	
10.	Horticulture (NC II)	640 hours	
11.	Landscape Installation and Maintenance (NC II)	320 hours	Crop Production
12.	Organic Agriculture (NC II)	320 hours	Crop Production
13.	Pest Management (NC II)	320 hours	Crop Production
14.	Rice Machinery Operation (NC II)	320 hours	Crop Production
15.	Slaughtering Operation (NC II)	160 hours	Animal Production
1.	Beauty/Nail Care (NC II)	160 hours	40 hours of the subject during exploratory Grade 7/8
2.	Attractions and Theme Parks (NC II)	160 hours	
3.	Bread and Pastry Production (NC II)	160 hours	
4.	Caregiving (NC II)	640 hours	40 hours of the subject during exploratory Grade 7/8
5.	Cookery (NC II)	320 hours	40 hours of the subject during exploratory Grade 7/8
6.	Dressmaking (NC II)	320 hours	
7.	Food and Beverage Services (NC II)	160 hours	
8.	Front Office Services (NC II)	160 hours	40 hours of the subject during exploratory Grade 7/8
9.	Hairdressing (NC II)	320 hours	
10.	Handicraft (Basketry, Macrame) (Non-NC)	160 hours	
11.	Handicraft (Fashion Accessories, Paper Craft) (Non-NC)	160 hours	
12.	Handicraft (Needlecraft) (Non-NC)	160 hours	
13.	Handicraft (Woodcraft, Leathercraft) (Non-NC)	160 hours	
14.	Household Services (NC II)	320 hours	40 hours of the subject during exploratory Grade 7/8
15.	Housekeeping (NC II)	160 hours	
16.	Tailoring (NC II)	320 hours	40 hours of the subject during exploratory Grade 7/8
17.	Tour Guiding Services (NC II)	160 hours	
18.	Tourism Promotion Services (NC II)	160 hours	
19.	Travel Services (NC II)	160 hours	
20.	Wellness Massage (NC II)	160 hours	

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	Specialization	Number of Hours	Pre-requisite
1.	ICT	Computer Hardware Servicing (NC II)	
2.		Animation (NC II)	
3.		Computer Programming (NC IV)	
4.		Contact Center Services (NC II)	
5.		Illustration (NC II)	
6.		Medical Transcription (NC II)	
7.		Technical Drafting (NC II)	
1.	INDUSTRIAL ARTS	Automotive Servicing (NC I)	
2.		Carpentry (NC II)	
3.		Consumer Electronics Servicing (NC II)	
4.		Electrical Installation and Maintenance (NC II)	
5.		Masonry (NC II)	
6.		Plumbing (NC I)	
7.		Plumbing (NC II)	Plumbing (NC I)
8.		Refrigeration and Airconditioning Servicing (NC II)	
9.		Shielded Metal Arc Welding (NC I)	
10.		Shielded Metal Arc Welding (NC II)	Shielded Metal Arc Welding (NC I)
11.		Tile Setting (NC II)	

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(160 hours)

Course Description:

Prerequisite: Animal Production

This Module is an **ADVANCED** component of **Senior High School – Animal Production** which leads to an **Artificial Insemination–Large Ruminants** National Certificate Level II (**NC II**). It covers **four** core competencies that the high school student ought to possess: (1) establish readiness of cow/buffalo for artificial insemination, (2) prepare for artificial insemination, (3) perform artificial insemination, and (4) prepare artificial insemination documentation and reports.

The preliminaries of this advanced course include the following: (1) discussion on the relevance of the course, (2) explanation of key concepts relative to the course, and (3) exploration of career opportunities.

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
Introduction 1. Basic concepts in artificial insemination in large ruminants 2. Relevance of the course 3. Career opportunities	The learner demonstrates an understanding of the basic concepts and underlying theories in the artificial insemination (AI) of beef cattle, dairy cows and buffaloes,	The learner independently performs core competencies in the artificial insemination of large ruminants as prescribed by TESDA Training Regulations.	1. Explain basic concepts in large ruminant AI 2. Discuss the relevance of the course 3. Explore career opportunities in Large Ruminant AI as a technician	
LESSON 1. ARTIFICIAL INSEMINATION-LARGE RUMINANT				
1. Validate Information on Animal 2. Body Condition Scoring 3. Heat Detection Thru Rectal Palpation	The learner demonstrates an understanding of establishing the readiness of breeders for AI.	The learner independently confirms readiness of breeders for AI.	LO 1. ESTABLISH READINESS FOR ARTIFICIAL INSEMINATION 1.1. Record client’s and animal’s profile using the prescribed forms and following standard operating procedure 1.2. Transact and coordinate (with clients?) following communication etiquette 1.3. Make an accurate interpretation and decision based on the gathered information 1.4. Evaluate physical condition of the animal based on recommended standards 1.5. Monitor signs of estrus 1.6. Restrain animal using the prescribed chute	TLE_AFAIR9-12VBH-IIIa-f-1

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			1.7. Conduct examination through rectal palpation to determine the animal's reproductive condition 1.8. Perform task without causing injury to the animal, technician and others 1.9. Make an accurate interpretation and decision based on the result of the actual examination	
4. Pre-insemination Activities 5. Semen Storage and Quality Maintenance	The learners demonstrate an understanding of the process of preparation for artificial insemination.	The learner independently performs necessary preparations prior to artificial insemination.	LO 2. PREPARE FOR ARTIFICIAL INSEMINATION 2.1. Source semen and LN ₂ supplies from the concerned partners 2.2. Prepare and secure AI kit and Liquid Nitrogen (LN ₂) tank with semen during transport 2.3. Make preparation for AI according to hygiene and safety requirements 2.4. Restrain animal using suitable restraining procedures 2.5. Monitor LN ₂ level using the dip stick and replenish when necessary 2.6. Replenish semen inventory as needed based on recommended procedure 2.7. Perform task with caution to ensure safety of technician and other individuals	TLE_AFAIR9-12PS-III-g-j-2
6. Semen Preparation 7. Actual Insemination 8. Post-artificial insemination (AI) activities	The learners demonstrate an understanding of performing artificial insemination.	The learner independently performs artificial insemination to inheat cows.	LO 3. PERFORM ARTIFICIAL INSEMINATION 3.1. Select semen to be used in accordance with the mating plan and production objective	TLE_AFAIR9-12SAP-IV-a-g-3

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			3.2. Prepare semen straw for AI in accordance with established procedure 3.3. Perform task in the recommended location to ensure quality of semen and to avoid injuries to technician and others 3.4. Discard defective semen straws in accordance with environmental regulations 3.5. Perform cleaning of the external genitalia using suitable materials and as needed 3.6. Deposit semen into the female reproductive tract following recommended standards 3.7. Perform task without causing injury to the animal, technician and others 3.8. Advise clients about the management of animals after AI 3.9. Dispose of waste according to existing environmental regulations	
9. Collection and Processing of Data 10. Accomplish and submit forms	The learner demonstrates an understanding of the preparation of documents and reports on completed artificial insemination.	The learner independently prepares documents and reports on completed artificial insemination.	LO 4. PREPARE FOR ARTIFICIAL INSEMINATION (AI) DOCUMENTATIONS AND REPORTS 4.1. Secure necessary forms from partners 4.2. Collect and process data as required in the forms 4.3. Gather photos and other pertinent information as needed 4.4. Secure evidence for breed registry as needed	TLE_AFAIR9-12CA-IV-h-j-4

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			4.5. Accomplish and submit forms to concerned partners 4.6. Prepare and submit summary report using required forms 4.7. Keep file copies of accomplished forms and summary report as well as those compiled by technicians according to required filing procedures	

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 CODE BOOK LEGEND**

Sample: TLE_AFPAAIR9-12CA-IV-h-j-4

LEGEND		SAMPLE	
First Entry	Learning Area and Strand/ Subject or Specialization	Technology and Livelihood Education_Agri-Fishery Artificial Insemination - Ruminant	TLE_AF AIR 9-12
	Grade Level	Grade 9/10/11/12	
Uppercase Letter/s	Domain/Content/ Component/ Topic	Collection and Processing of Data	CA
			-
Roman Numeral <i>*Zero if no specific quarter</i>	Quarter	Fourth Quarter	IV
Lowercase Letter/s <i>*Put a hyphen (-) in between letters to indicate more than a specific week</i>	Week	Week eight to ten	h-j
			-
Arabic Number	Competency	Prepare for artificial insemination documentations and reports	4

DOMAIN/ COMPONENT	CODE
Validate Information on Animal Body Condition Scoring Heat Detection Thru Rectal Palpation	VBH
Pre-insemination Activities Semen Storage and Quality Maintenance	PS
Semen Preparation Actual Insemination Post-artificial insemination (AI) activities	SAP
Collection and Processing of Data Accomplish and submit forms	CA

Technology-Livelihood Education and Technical-Vocational Track specializations may be taken between Grades 9 to 12.

Schools may offer specializations from the four strands as long as the minimum number of hours for each specialization is met.

Please refer to the sample Curriculum Map on the next page for the number of semesters per Agri-Fishery Arts specialization and those that have pre-requisites. Curriculum Maps may be modified according to specializations offered by a school.

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 SAMPLE AGRICULTURE AND FISHERY ARTS CURRICULUM MAP**

No.	Grade 7/8 (Exploratory)	Grade 9	Grade 10	Grade 11	Grade 12
1	EXPLORATORY	Crop Production (NC I)	4 semesters	*Landscape Installation and Maintenance (NC II)	
2				4 semesters	
3				*Pest Management (NC II)	
4				4 semesters	
5				*Rice Machinery Operation (NC II)	
6		4 semesters			
7		Animal Production (NC II)		*Artificial Insemination: Swine (NC II)	
8				2 sems	
9				*Artificial Insemination: Ruminants (NC II)	
10		2 sems		*Slaughtering Operation (NC II)	
11		2 sems		8 semesters	
12		Horticulture (NC II)		8 semesters	
13		4 semesters		8 semesters	
12	Aquaculture (NC II)		Fish Nursery Operation (NC II)		
13			2 sems		
	4 semesters		*Fish or Shrimp Grow Out Operation (Non NC)		
	2 sems		*Fish Wharf Operation (NC I)		
	2 sems		2 sems		

*Please note that these subjects have prerequisites mentioned in the CG.