

K to 12 BASIC EDUCATION CURRICULUM
JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL - TECHNICAL-VOCATIONAL LIVELIHOOD TRACK
AGRI-FISHERY ARTS – ANIMAL PRODUCTION (SWINE) NC II
(320 Hours)

These are the specializations and their pre-requisites. These lists should be used as reference for curriculum maps.

AGRI-FISHERY ARTS

	Specialization	Number of Hours	Pre-requisite
1.	Agricultural Crops Production (NC I)	320 hours	
2.	Agricultural Crops Production (NC II) <i>updated based on TESDA Training Regulations published December 28, 2013</i>	640 hours	
3.	Agricultural Crops Production (NC III)	640 hours	Agricultural Crops Production (NC II)
4.	Animal Health Care Management (NC III)	320 hours	Animal Production (Poultry-Chicken) (NC II) or Animal Production (Ruminants) (NC II) or Animal Production (Swine) (NC II)
5.	Animal Production (Poultry-Chicken) (NC II) <i>updated based on TESDA Training Regulations published December 28, 2013</i>	320 hours	
6.	Animal Production (Large Ruminants) (NC II) <i>updated based on TESDA Training Regulations published December 28, 2013</i>	320 hours	
7.	Animal Production (Swine) (NC II) <i>updated based on TESDA Training Regulations published December 28, 2013</i>	320 hours	
8.	Aquaculture (NC II)	640 hours	
9.	Artificial Insemination (Large Ruminants) (NC II)	160 hours	Animal Production (Large Ruminants) (NC II)
10.	Artificial Insemination (Swine) (NC II)	160 hours	Animal Production (Swine) (NC II)
11.	Fish Capture (NC II)	640 hours	
12.	Fishing Gear Repair and Maintenance (NC III)	320 hours	
13.	Fish-Products Packaging (NC II)	320 hours	
14.	Fish Wharf Operation (NC I)	160 hours	
15.	Food Processing (NC II)	640 hours	
16.	Horticulture (NC III)	640 hours	Agricultural Crops Production (NC II)
17.	Landscape Installation and Maintenance (NC II)	320 hours	
18.	Organic Agriculture (NC II)	320 hours	
19.	Pest Management (NC II)	320 hours	
20.	Rice Machinery Operations (NC II)	320 hours	
21.	Rubber Processing (NC II)	320 hours	
22.	Rubber Production (NC II)	320 hours	
23.	Slaughtering Operations (Hog/Swine/Pig) (NC II)	160 hours	

K to 12 BASIC EDUCATION CURRICULUM
JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL - TECHNICAL-VOCATIONAL LIVELIHOOD TRACK
AGRI-FISHERY ARTS – ANIMAL PRODUCTION (SWINE) NC II
(320 Hours)

HOME ECONOMICS

	Specialization	Number of Hours	Pre-requisite
1.	Attractions and Theme Parks Operations with Ecotourism (NC II)	160 hours	
2.	Barbering (NC II)	320 hours	
3.	Bartending (NC II)	320 hours	
4.	Beauty/Nail Care (NC II)	160 hours	
5.	Bread and Pastry Production (NC II)	160 hours	
6.	Caregiving (NC II)	640 hours	
7.	Commercial Cooking (NC III)	320 hours	Cookery (NC II)
8.	Cookery (NC II)	320 hours	
9.	Dressmaking (NC II)	320 hours	
10.	Events Management Services (NC III)	320 hours	
11.	Fashion Design (Apparel) (NC III)	640 hours	Dressmaking (NC II) or Tailoring (NC II)
12.	Food and Beverage Services (NC II) <i>updated based on TESDA Training Regulations published December 28, 2013</i>	160 hours	
13.	Front Office Services (NC II)	160 hours	
14.	Hairdressing (NC II)	320 hours	
15.	Hairdressing (NC III)	640 hours	Hairdressing (NC II)
16.	Handicraft (Basketry, Macrame) (Non-NC)	160 hours	
17.	Handicraft (Fashion Accessories, Paper Craft) (Non-NC)	160 hours	
18.	Handicraft (Needlecraft) (Non-NC)	160 hours	
19.	Handicraft (Woodcraft, Leathercraft) (Non-NC)	160 hours	
20.	Housekeeping (NC II) <i>updated based on TESDA Training Regulations published December 28, 2013</i>	160 hours	
21.	Local Guiding Services (NC II)	160 hours	
22.	Tailoring (NC II)	320 hours	
23.	Tourism Promotion Services (NC II)	160 hours	
24.	Travel Services (NC II)	160 hours	
25.	Wellness Massage (NC II)	160 hours	

K to 12 BASIC EDUCATION CURRICULUM
JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL - TECHNICAL-VOCATIONAL LIVELIHOOD TRACK
AGRI-FISHERY ARTS – ANIMAL PRODUCTION (SWINE) NC II
(320 Hours)

INDUSTRIAL ARTS

	Specialization	Number of Hours	Pre-requisite
1.	Automotive Servicing (NC I) <i>updated based on TESDA Training Regulations published December 28, 2013</i>	640 hours	
2.	Automotive Servicing (NC II)	640 hours	Automotive Servicing (NC I)
3.	Carpentry (NC II)	640 hours	
4.	Carpentry (NC III)	320 hours	Carpentry (NC II)
5.	Construction Painting (NC II)	160 hours	
6.	Domestic Refrigeration and Air-conditioning (DOMRAC) Servicing (NC II)	640 hours	
7.	Driving (NC II)	160 hours	
8.	Electrical Installation and Maintenance (NC II)	640 hours	
9.	Electric Power Distribution Line Construction (NC II)	320 hours	Electrical Installation and Maintenance (NC II)
10.	Electronic Products Assembly and Servicing (NC II) <i>updated based on TESDA Training Regulations published December 28, 2013</i>	640 hours	
11.	Furniture Making (Finishing) (NC II)	640 hours	
12.	Instrumentation and Control Servicing (NC II)	320 hours	Electronic Products Assembly and Servicing (EPAS) (NC II)
13.	Gas Metal Arc Welding (GMAW) (NC II)	320 hours	Shielded Metal Arc Welding (SMAW) (NC II)
14.	Gas Tungsten Arc Welding (GTAW) (NC II)	320 hours	Shielded Metal Arc Welding (GMAW) (NC II)
15.	Machining (NC I)	640 hours	
16.	Machining (NC II)	640 hours	Machining (NC I)
17.	Masonry (NC II)	320 hours	
18.	Mechatronics Servicing (NC II)	320 hours	Electronic Products Assembly and Servicing (EPAS) (NC II)
19.	Motorcycle/Small Engine Servicing (NC II)	320 hours	
20.	Plumbing (NC I)	320 hours	
21.	Plumbing (NC II)	320 hours	Plumbing (NC I)
22.	Refrigeration and Air-Conditioning (Packaged Air-Conditioning Unit [PACU]/Commercial Refrigeration Equipment [CRE]) Servicing (NC III)	640 hours	Domestic Refrigeration and Air-conditioning (DOMRAC) Servicing (NC II)
23.	Shielded Metal Arc Welding (NC I)	320 hours	
24.	Shielded Metal Arc Welding (NC II)	320 hours	Shielded Metal Arc Welding (NC I)
25.	Tile Setting (NC II)	320 hours	
26.	Transmission Line Installation and Maintenance (NC II)	640 hours	Electrical Installation and Maintenance (NC II)

K to 12 BASIC EDUCATION CURRICULUM
JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL - TECHNICAL-VOCATIONAL LIVELIHOOD TRACK
AGRI-FISHERY ARTS – ANIMAL PRODUCTION (SWINE) NC II
(320 Hours)

INFORMATION, COMMUNICATIONS AND TECHNOLOGY (ICT)

	Specialization	Number of Hours	Pre-requisite
1.	Animation (NC II)	320 hours	
2.	Broadband Installation (Fixed Wireless Systems) (NC II)	160 hours	Computer Systems Servicing (NC II)
3.	Computer Programming (.Net Technology) (NC III) <i>updated based on TESDA Training Regulations published December 28, 2013</i>	320 hours	
4.	Computer Programming (Java) (NC III) <i>updated based on TESDA Training Regulations published December 28, 2013</i>	320 hours	
5.	Computer Programming (Oracle Database) (NC III) <i>updated based on TESDA Training Regulations published December 28, 2013</i>	320 hours	
6.	Computer Systems Servicing (NC II) <i>updated based on TESDA Training Regulations published December 28, 2007</i>	640 hours	
7.	Contact Center Services (NC II)	320 hours	
8.	Illustration (NC II)	320 hours	
9.	Medical Transcription (NC II)	320 hours	
10.	Technical Drafting (NC II)	320 hours	
11.	Telecom OSP and Subscriber Line Installation (Copper Cable/POTS and DSL) (NC II)	320 hours	Computer Systems Servicing (NC II)
12.	Telecom OSP Installation (Fiber Optic Cable) (NC II)	160 hours	Computer Systems Servicing (NC II)

K to 12 BASIC EDUCATION CURRICULUM
JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL - TECHNICAL-VOCATIONAL LIVELIHOOD TRACK
AGRI-FISHERY ARTS – ANIMAL PRODUCTION (SWINE) NC II
(320 Hours)

Course Description:

This course leads to **Animal Production (Swine)** National Certificate Level II (NC II). It covers the common competencies such as: (1) application of safety measures in farm operations, (2) use of farm tools and equipment, (3) performance of estimations and calculations, (4) processing farm waste, and core competencies such as: (1) handling breeders, (2) handling farrowing sows and sucklings, (3) raising weanlings, (4) producing finishers, (5) maintaining a healthy animal environment, and (6) application of bio-security measures, with a nominal duration of 320 hours.

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<p>Introduction</p> <ol style="list-style-type: none"> 1. Basic concepts in animal production 2. Relevance of the course 3. Career opportunities in animal production 	The learners demonstrate an understanding of basic concepts and underlying theories in animal production	The learners shall be able to demonstrate common competencies in animal production as prescribed by TESDA Training Regulations	<p>The learners...</p> <ol style="list-style-type: none"> 1. Explain basic concepts in animal production 2. Discuss the relevance of the course 3. Explore career opportunities in animal production 	
PERSONAL ENTREPRENEURIAL COMPETENCIES (PECS)				
<ol style="list-style-type: none"> 1. Assessment of Personal Competencies and Skills (PECs) vis-à-vis PECs of a practicing entrepreneur/employee <ol style="list-style-type: none"> 1.1 Characteristics 1.2 Attributes 1.3 Lifestyle 1.4 Skills 1.5 Traits 2. Analysis of PECs compared to those of a practitioner 3. Align one's PECs based on the results of the assessment 	The learners demonstrate an understanding of one's PECs in animal production	The learners shall be able to prepare aactivity plan that aligns with the PECs of a practitioner/entrepreneur in animal production	<p>LO 1. Recognize Personal Entrepreneurial Competencies and Skills (PECs) needed in animal production</p> <ol style="list-style-type: none"> 1.1 Compare one's PECs with those of a practitioner/entrepreneur 1.2 Align one's PECs with those of a practitioner/entrepreneur 1.3 Assess one's PECs 1.4 Assess practitioner's PECs 	TLE_PECs7-12-00-1

K to 12 BASIC EDUCATION CURRICULUM
JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL - TECHNICAL-VOCATIONAL LIVELIHOOD TRACK
AGRI-FISHERY ARTS – ANIMAL PRODUCTION (SWINE) NC II
(320 Hours)

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
1. Strengthening and developing further one's PECs	The learners demonstrate an understanding of one's PECs in animal production	The learners shall be able to create a plan of action that strengthens/ develops one's PECs in animal production	LO 2. Develop and strengthen personal competencies and skills (PECs) needed in animal production 2.1 Identify areas for improvement, development and growth 2.2 Align one's PECs according to his/her business/career choice 2.3 Create a plan of action that ensures success of his/her business/career choice	TLE_PECs7-12-00-2
ENVIRONMENT AND MARKET (EM)				
Market (Town) 1. Key concepts of market 2. Players in the market (competitors) 1. Products & services available in the market	The learners demonstrate an understanding of the concepts of environment and market and how they relate to the field of animal production, particularly in one's town/ municipality	The learners shall be able to create a business vicinity map reflective of the potential animal production market in the locality/town	LO 1. Recognize and understand the market in animal production 1.1 Identify the players/ competitors within the town 1.2 Identify the different products/services available in the market	TLE_EM7-12-00-1
Market (customer) 1. Key concepts in identifying and understanding the consumer 2. Consumer analysis through: 2.1 Observation 2.2 Interviews 2.3 Focus group discussion (FGD) 3. Survey			LO 2. Recognize the potential customer/ market in animal production 2.1 Profile potential customers 2.2 Identify the customer's needs and wants through consumer analysis 2.3 Conduct consumer/market analysis	TLE_EM7-12-00-2

K to 12 BASIC EDUCATION CURRICULUM
JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL - TECHNICAL-VOCATIONAL LIVELIHOOD TRACK
AGRI-FISHERY ARTS – ANIMAL PRODUCTION (SWINE) NC II
(320 Hours)

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<ol style="list-style-type: none"> 1. Generating business ideas <ol style="list-style-type: none"> 1.1 Key concepts in generating business ideas 1.2 Knowledge, skills, passions, and interests 1.3 New applications 1.4 Irritants 1.5 Striking ideas (new concepts) 1.6 Serendipity Walk 			<p>LO 3. Create new business ideas in animal production by using various techniques</p> <ol style="list-style-type: none"> 3.1 Explore ways of generating business ideas from ones' own characteristics/attributes 3.2 Generate business ideas using product innovation from irritants, trends, and emerging needs 3.3 Generate business ideas using Serendipity Walk 	TLE_EM7-12-00-3
<ol style="list-style-type: none"> 1. Product development 2. Key concepts in developing a product 3. Finding Value 4. Innovation <ol style="list-style-type: none"> 4.1 Unique Selling Proposition (USP) 	The learners demonstrate an understanding of concepts of environment and market and how they relate to automotive servicing, particularly in one's town/municipality	The learners shall be able to create a business vicinity map reflective of the potential animal production market within the locality/town	<p>LO 4. Develop a product/service in animal production</p> <ol style="list-style-type: none"> 4.1 Identify what is of "value" to the customer 4.2 Identify the customer 4.3 Explain what makes a product unique and competitive 4.4 Apply creativity and innovative techniques to develop marketable product 4.5 Employ a USP to the product/service 	TLE_EM7-12-00-4
<ol style="list-style-type: none"> 1. Selecting business idea 2. Key concepts in selecting a business idea <ol style="list-style-type: none"> 3.1 Criteria 3.2 Techniques 			<p>LO 5. Select a business idea based on the criteria and techniques set</p> <ol style="list-style-type: none"> 5.1 Enumerate various criteria and steps in selecting a business idea 5.2 Apply the criteria/steps in selecting a viable business idea 5.3 Determine a business idea based on the criteria/techniques set 	TLE_EM7-12-00-5

K to 12 BASIC EDUCATION CURRICULUM
JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL - TECHNICAL-VOCATIONAL LIVELIHOOD TRACK
AGRI-FISHERY ARTS – ANIMAL PRODUCTION (SWINE) NC II
(320 Hours)

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
Branding			LO 6. Develop a brand for the product 6.1 Identify the benefits of having a good brand 6.2 Enumerate recognizable brands in the town/province 6.3 Enumerate criteria for developing a brand 6.4 Generate a clear appeal	TLE_EM7-12-00-6
COMMON COMPETENCIES				
LESSON 1: APPLYING SAFETY MEASURES IN FARM OPERATIONS (ASMFO)				
<ul style="list-style-type: none"> • Work tasks in farm operations • Places for safety measures • Time for safety measures • Preparation of tools and outfits <ul style="list-style-type: none"> - PPE - Checkup and repair prior to use 	The learners demonstrate an understanding of the concepts, underlying theories, and principles in applying safety measures in farm operations	The learners shall be able to apply safety measures in farm operations	LO 1. Determine areas of concern for safety measures 1.1 Identify work tasks in line with farm operations 1.2 Determine place for safety measures in line with farm operations 1.3 Determine time for safety measures in line with farm operations 1.4 Prepare appropriate tools, materials and outfits in line with job requirements	TLE_AFAAPS9-12ASMFO-Ia-b-1
<ul style="list-style-type: none"> • Safety precautions in using tools and materials • Wearing PPE • Farm emergency procedures • Hazards identification and reporting • Compliance to health program of Department of Health (DOH) and Occupational Safety and Health Standards (OSHS) 			LO 2. Apply appropriate safety measures 2.1 Use tools and materials according to the specification and procedure 2.2 Wear outfits according to the farm requirements 2.3 Strictly observe the shelf life/expiration of the materials 2.4 Follow emergency procedures to ensure the seat work requirements 2.5 Identify and report the hazard in the work place in line with the guidelines	TLE_AFAAPS9-12ASMFO-Ib-c-2

K to 12 BASIC EDUCATION CURRICULUM
JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL - TECHNICAL-VOCATIONAL LIVELIHOOD TRACK
AGRI-FISHERY ARTS – ANIMAL PRODUCTION (SWINE) NC II
(320 Hours)

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<ul style="list-style-type: none"> • Procedure in cleaning and storing tools and outfits • Proper handling of unused materials and chemicals <ul style="list-style-type: none"> - Labeling - Storing • farm waste disposal <ul style="list-style-type: none"> - Waste management system <p style="margin-left: 40px;">Department of Environment and Natural Resources (DENR) regulations</p>			<p>LO 3. Safe keep/dispose tools, materials and outfit</p> <p>3.1 Clean and store used tools and outfit after use in designated areas</p> <p>3.2 Label and store unused materials according to manufacturer’s recommendation and farm requirements</p> <p>3.3 Dispose waste materials according to manufacturer’s, government, and farm requirements</p>	TLE_AFAAPS9-12ASMFO-Id-e-3
LESSON 2: USING FARM TOOLS AND EQUIPMENT (UFTE)				
<ul style="list-style-type: none"> • Pre-operational checkup of tools identification and reporting of defective tools • Safety practices in using tools 	The learners demonstrate an understanding of the underlying theories in using farm tools and equipment	The learners shall be able to use farm tools and equipment according to requirement/use	<p>LO 1. Select and use farm tools</p> <p>1.1 Identify appropriate farm tools according to requirement/use</p> <p>1.2 Check farm tools for defects</p> <p>1.3 Report defective farm tools in accordance with farm procedures</p> <p>1.4 Use appropriate tools and equipment according to job requirements and manufacturers conditions</p>	TLE_AFAAPS9-12UFTE-Ie-f-4
<ul style="list-style-type: none"> • Manual of farm equipment and specifications • Pre-operation checkup of equipment • Calibration and operation of farm equipment 			<p>LO 2. Select and operate farm equipment</p> <p>2.1 Identify appropriate farm equipment</p> <p>2.2 Read carefully instructional manual of the farm tools and equipment prior to operation</p> <p>2.3 Conduct pre-operation checkup in line with manufacturers manual</p>	TLE_AFAAPS9-12UFTE-Ig-h-5

K to 12 BASIC EDUCATION CURRICULUM
JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL - TECHNICAL-VOCATIONAL LIVELIHOOD TRACK
AGRI-FISHERY ARTS – ANIMAL PRODUCTION (SWINE) NC II
(320 Hours)

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<ul style="list-style-type: none"> • Safety practices in using farm equipment 			2.4 Identify and reports defects in farm equipment in line with farm procedures 2.5 Use farm equipment according to its function 2.6 Follow safety procedures	
<ul style="list-style-type: none"> • Routine checkup and maintenance of tools and equipment <ul style="list-style-type: none"> - Cleaning of tools and equipment - Inspection of tools and equipment - Proper upkeep of equipment • Application of safety measures and practices • Storage of tools per farm procedures 			LO 3. Perform preventive maintenance 3.1 Clean tools and equipment immediately after use in line with farm procedures 3.2 Perform routine checkup and maintenance 3.3 Store tools and equipment in designated areas in line with farm procedures	TLE_AFAAPS9-12UFTE-Ih-j-6
LESSON 3: PERFORMING ESTIMATION AND BASIC CALCULATION (PEBC)				
<ul style="list-style-type: none"> • Farm inputs • Labor requirements • Estimating farm inputs and labor requirements • Reporting estimation to appropriate person <ul style="list-style-type: none"> - Preparation of reports - Record keeping 	The learners demonstrate an understanding of basic estimation and calculation used in animal production	The learners shall be able to perform estimation and basic calculation relative to animal production	LO 1. Perform estimation 1.1 Identify job requirements from written or oral communications 1.2 Estimate quantities and resources and time required to complete a task 1.3 Calculate the duration of work completion 1.4 Report the estimated materials and resources to appropriate person	TLE_AFAAPS9-12PEBC-IIa-7

K to 12 BASIC EDUCATION CURRICULUM
JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL - TECHNICAL-VOCATIONAL LIVELIHOOD TRACK
AGRI-FISHERY ARTS – ANIMAL PRODUCTION (SWINE) NC II
(320 Hours)

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<ul style="list-style-type: none"> • Basic mathematical operations • Systems of measurement • Units of measurement • Basic calculation • Methods of calculation • System and unit of measurements • Percentage and fraction calculation 			<p>LO 2. Perform basic workplace calculation</p> <p>2.1 Identify calculations to be made according to the job requirement</p> <p>2.2 Identify correct methods of calculation</p> <p>2.3 Ascertain systems and units of measurement to be followed</p> <p>2.4 Perform calculations needed to complete a task using the four basic mathematical operations</p> <p>2.5 Use fraction and percentage or mixed in calculating to complete the instruction</p> <p>2.6 Employ different techniques in checking accuracy of result</p>	<p>TLE_AFAAPS9-12PEBC-IIb-c-8</p>
LESSON 4: PROCESSING FARM WASTE (PRW)				
<ul style="list-style-type: none"> • Tools and materials for agricultural waste collection • Wearing of PPE • Collection of wastes <ul style="list-style-type: none"> - Waste collection requirements and plan - OSHS - Hazardous Materials (HAZMAT) protocol - Profitability of the operation - Volume of waste 	<p>The learners demonstrate an understanding of processing farm waste</p>	<p>The learners shall be able to process farm waste according to industry standards and environmental legislation</p>	<p>LO 1. Collect farm waste</p> <p>1.1 Prepare tools and materials for collection of farm waste</p> <p>1.2 Collect waste following OSHS and waste collection requirements and plan</p> <p>1.3 Collect dangerous and hazardous wastes following the HAZMAT protocol</p> <p>1.4 Wear appropriate PPE as prescribed by OSHS.</p>	<p>TLE_AFAAPS9-12PRW-IIc-d-9</p>
<ul style="list-style-type: none"> • Identification of farm wastes by categories 			<p>LO 2. Identify and segregate wastes</p> <p>2.1 Identify waste by category according to industry standards and environmental legislation</p>	<p>TLE_AFAAPS9-12PRW-IIe-10</p>

K to 12 BASIC EDUCATION CURRICULUM
JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL - TECHNICAL-VOCATIONAL LIVELIHOOD TRACK
AGRI-FISHERY ARTS – ANIMAL PRODUCTION (SWINE) NC II
(320 Hours)

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<ul style="list-style-type: none"> - Verification of farm waste identification from authority • Waste segregation <ul style="list-style-type: none"> - Contamination prevention - Sorting - Placing in labeled containers • Codes and regulations on waste identification and segregation 			<ul style="list-style-type: none"> 2.2 Segregate waste according to organizational requirements and relevant legislation 2.3 Sorted waste is placed in properly labeled container to avoid littering and cross-contamination 2.4 Obtain information on waste by asking authority to ensure correct identification 	
<ul style="list-style-type: none"> • Hazardous waste categories • Proper handling of wastes <ul style="list-style-type: none"> - OSH • Processing of waste <ul style="list-style-type: none"> - OSHS • Waste segregation list • 3 Rs (reduce, reuse, recycle) principle • Environmental legislation/policies on waste management and disposal 			<p>LO 3. Treat and process farm wastes</p> <ul style="list-style-type: none"> 3.1 Handle dangerous and hazardous waste according to organizational requirements and relevant legislation following OSHS procedures 3.2 Apply principles of 3Rs accordingly 3.3 Dispose of farm waste according to environmental legislation and codes 	<p>TLE_AFAAPS9-12PRW-IIe-f-11</p>
<ul style="list-style-type: none"> • Placing of warning sign and labels in workplace • Cleaning of work area <ul style="list-style-type: none"> - 5S of good housekeeping - Housekeeping - Maintenance schedule - Housekeeping inspection checklist • Cleaning and checking tools 			<p>LO 4. Perform housekeeping</p> <ul style="list-style-type: none"> 4.1 Display appropriate warning signs and labels in conspicuous places around the worksite 4.2 Clean the work area according to 5S principle 4.3 Check, clean, and stow tools according to established industry procedure and following user’s manual 	<p>TLE_AFAAPS9-12PRW-IIif-g-12</p>

K to 12 BASIC EDUCATION CURRICULUM
JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL - TECHNICAL-VOCATIONAL LIVELIHOOD TRACK
AGRI-FISHERY ARTS – ANIMAL PRODUCTION (SWINE) NC II
(320 Hours)

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<ul style="list-style-type: none"> - Industry procedures and user’s manual • Storage of materials and equipment <ul style="list-style-type: none"> - Industry procedures - Inspection of PPE and equipment • Record keeping according to industry requirements 			4.4 Store materials following industry standard procedures and manufacture’s specifications 4.5 Check damaged PPE and ensure that clean and undamaged equipment is stored 4.6 Keep record according to industry requirements.	
CORE COMPETENCIES				
LESSON 5: HANDLING BREEDERS (HBR)				
<ul style="list-style-type: none"> • Acclimatization of the new stocks • Provision of routine medication of the animals prescribed by veterinarian • Selection of suitable breeds • Selection of the breeder stocks • Application of GAHP, Animal Welfare Act, and OSHS 	The learners demonstrate an understanding of the underlying concepts in handling breeders	The learners shall be able to perform preparatory breeding activities following industry standards	LO 1. Perform preparatory breeding activities 1.1 Acclimatize newly arrived stocks following industry standards as prescribed by veterinarian or an animal health official 1.2 Give the animal routine medication as prescribed by veterinarian 1.3 Select a suitable breed based on the industry standard and choice of enterprise 1.4 Select breeder stocks based on industry and enterprise standards	TLE_AFAAPS9-12HBR-IIh-j-13
<ul style="list-style-type: none"> • Monitoring and detection of signs of heat <ul style="list-style-type: none"> - Heat detection techniques • Breeding sows/gilts <ul style="list-style-type: none"> - Different systems of breeding 			LO 2. Breed sows and gilts 2.1 Monitor signs of heat based on standards protocol 2.2 Perform heat-detection technique following established protocol 2.3 Breed sows/gilts using breeding systems based on choice of enterprise	TLE_AFAAPS9-12HBR-IIj-IIIa-14
<ul style="list-style-type: none"> • Training the boar to mount • Vaccination and medication of boar 			LO 3. Prepare and train boar for breeding 3.1 Train boar to mount a female or a dummy sow	TLE_AFAAPS9-12HBR-IIj-IIIb-c-15

K to 12 BASIC EDUCATION CURRICULUM
JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL - TECHNICAL-VOCATIONAL LIVELIHOOD TRACK
AGRI-FISHERY ARTS – ANIMAL PRODUCTION (SWINE) NC II
(320 Hours)

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<ul style="list-style-type: none"> • Determination of ideal weight and age for breeding • Observation of ratio of boar to sow • Application of GAHP and OSHS 			3.2 Give boar prescribed vaccine and medication 3.3 Determine ideal weight and age according industry standard 3.1 Observe optimum boar-to-sow ratio following standard monitoring scheme	
<ul style="list-style-type: none"> • Monitoring signs of pregnancy • Pregnancy diagnosis <ul style="list-style-type: none"> - Techniques to determine pregnancy 			LO 4. Monitor signs of pregnancy 4.1 Monitor signs of pregnancy according to standards protocol 4.2 Perform pregnancy diagnosis according to standard procedures	TLE_AFAAPS9-12HBR-IIId-16
<ul style="list-style-type: none"> • Performing the periodic activities <ul style="list-style-type: none"> - Transferring to dry and pregnant unit - Regulating feed intake based on stage of production - Vaccination - Deworming - Mange Treatment (external parasites) - Sow cleaning - Transferring to farrowing pens • Application of feeding program based on the physiological production cycle • Selection and culling of nonperforming breeders • Monitoring changes in animal behavioral • Application of GAHP and OSHS 			LO 5. Maintain and monitor animal health condition 5.1 Perform periodic activities following work plan and breeding schedules 5.2 Feed animal stocks based on physiological growths and production cycle 5.3 Select nonperforming breeders for culling based on industry standards 5.4 Monitor changes in animal behavior following standard procedures and GAHP	TLE_AFAAPS9-12HBR-IIIf-17

K to 12 BASIC EDUCATION CURRICULUM
JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL - TECHNICAL-VOCATIONAL LIVELIHOOD TRACK
AGRI-FISHERY ARTS – ANIMAL PRODUCTION (SWINE) NC II
(320 Hours)

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<ul style="list-style-type: none"> • Updating stock inventory <ul style="list-style-type: none"> - Established farm recording systems • Monitoring and record breeding schedule <ul style="list-style-type: none"> - Work plan • Recording production performance • Sample record Form <ul style="list-style-type: none"> - Breeding date - Farrowing date - Litter size - Mortality record 			LO 6. Record Data 6.1 Update stock inventory according to established farm recording system 6.2 Monitor and record breeding schedule following work plan 6.3 Record production performance of breeders according to enterprise protocol	TLE_AFAAPS9-12HB-IIIg-18
LESSON 6: HANDLING FARROWING SOWS AND SUCKLINGS (HFSS)				
<ul style="list-style-type: none"> • Cleaning and disinfection of the farrowing stalls • Bathing of the sow following GAHP and OSHS • Transferring of the pregnant sow to farrowing pens • Feeding the pregnant sow <ul style="list-style-type: none"> - Determination of feed intake • Monitoring signs of farrowing <ul style="list-style-type: none"> - Signs of farrowing • Preparation of materials and supply needed in farrowing • Wearing appropriate PPE and application of OSHS 	The students demonstrate an understanding of the underlying concepts and principles in handling farrowing sows and sucklings	The learners shall be able to handle farrowing sows and suckling's activities based on industry standards	LO 1. Prepare animals for farrowing 1.1 Clean and disinfect farrowing stalls or pens following the standard hygienic procedures 1.2 Bathe sows following Good Animal Husbandry Practices (GAHP) 1.3 Transfer pregnant sows to farrowing stalls or pens according to industry standards 1.4 Determine feed intake based on the protocol 1.5 Monitor signs of approaching farrowing 1.6 Prepare farrowing materials and supplies based on the work requirements 1.7 Wear appropriate PPE following OSHS	TLE_AFAAPS9-12HFSS-IIIh-j-19
<ul style="list-style-type: none"> • Monitoring farrowing problems • Adjustment of feed intake 			LO 2. Perform farrowing-related activities 2.1 Monitor farrowing problems following enterprise protocol	TLE_AFAAPS9-12HFSS-IIIj-IV-b-20

K to 12 BASIC EDUCATION CURRICULUM
JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL - TECHNICAL-VOCATIONAL LIVELIHOOD TRACK
AGRI-FISHERY ARTS – ANIMAL PRODUCTION (SWINE) NC II
(320 Hours)

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<ul style="list-style-type: none"> - Nutrient requirements of animals • Assisting the sow or gilt during farrowing • Nurturing and management newborn piglets according to GAHP • Proper disposal of dead piglets and placenta following DENR regulation 			<ul style="list-style-type: none"> 2.2 Adjust feed intake based on nutrient requirements of animals 2.3 Assist the sow or gilt based on the animal requirement 2.4 Conduct management of newborn piglets according to GAHP 2.5 Dispose of placenta and dead piglets following DENR regulations 	
<ul style="list-style-type: none"> • Provision of temperature and climate requirements based on GAHP and Animal Welfare Act • Sucking of colostrum and milk • Injection of iron preparations • Castration of male piglets (GAHP and Animal Welfare Act) • Feeding of piglets per requirement • Weaning of piglets • Practicing GAHP 			<p>LO 3. Raise piglets to weaning</p> <ul style="list-style-type: none"> 3.1 Provide proper temperature/micro climate based on the minimum requirements for animal welfare of pigs and GAHP 3.2 Ensure colostrum and milk intake based from GAHP 3.3 Inject iron preparations based on industry standards and manufacturer’s specification 3.4 Castrate male animals based on the minimum requirement for the welfare of pigs and GAHP 3.5 Feed piglets based on their physiological growth requirements 3.6 Wean piglets based on industry standards 	<p>TLE_AFAAPS9-12HFSS-IV-c-d-e-21</p>
<ul style="list-style-type: none"> • Monitoring piglet behavior • Monitoring of animal health condition • Monitoring uniformity of the litter • Monitoring sow discharges • Instruction of veterinarian 			<p>LO 4. Maintain Health</p> <ul style="list-style-type: none"> 4.1 Monitor changes in piglet behavior following enterprise protocol 4.2 Monitor animal condition through changes in fecal color, odor, and consistency of piglets 4.3 Monitor uniformity of litter based on the enterprise requirements 	<p>TLE_AFAAPS9-12HFSS-IVe-f-22</p>

K to 12 BASIC EDUCATION CURRICULUM
JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL - TECHNICAL-VOCATIONAL LIVELIHOOD TRACK
AGRI-FISHERY ARTS – ANIMAL PRODUCTION (SWINE) NC II
(320 Hours)

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<ul style="list-style-type: none"> Implementation of vaccination program 			4.4 Monitor sow discharges following instructions of veterinarian 4.5 Implement vaccination based on veterinary recommendation	
<ul style="list-style-type: none"> Updating farrowing card Monitoring farrowing schedules Work plan Recording of production performance 			LO 5. Record data 5.1 Update farrowing card following enterprise procedures 5.2 Monitor farrowing schedules with reference to work plan 5.3 Record production performance and reported to immediate authority	TLE_AFAAPS9-12HFSS-IVf-g-23
LESSON 7: RAISING WEANLINGS (RWLS)				
<ul style="list-style-type: none"> Cleaning and disinfecting the pen Adjustment and supplying materials and equipment supplies Grouping of weaners in accordance to farm specifications Transferring of weaners in accordance with Animal Welfare Act Feeding animals per requirements Application of OSHS 	The students demonstrate understanding of the underlying concepts and principles of raising weanlings	The students shall be able to perform activities related to raising weanlings	LO 1. Prepare piglets for weaning 1.1 Clean and disinfect pens based on farm specifications 1.2 Adjust and supply materials and equipment 1.3 Group weaners based on the farm specifications 1.4 Transfer weaners in compliance with the Animal Welfare Act 1.5 Feed animals according to requirement	TLE_AFAAPS9-12RWLS-IVg-i-24
<ul style="list-style-type: none"> Regular cleaning of the pen - Hygienic procedures 			LO 2. Maintain conducive atmosphere and facilities for feeding 2.1 Clean pen regularly following standard hygienic procedures	TLE_AFAAPS9-12RWLS-IVj-I-b-25

K to 12 BASIC EDUCATION CURRICULUM
JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL - TECHNICAL-VOCATIONAL LIVELIHOOD TRACK
AGRI-FISHERY ARTS – ANIMAL PRODUCTION (SWINE) NC II
(320 Hours)

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<ul style="list-style-type: none"> • Maintaining the proper temperature animal housing facilities <ul style="list-style-type: none"> - Minimum Standards on the Welfare of Pigs • Code of GAHP • Inspection and adjustment of feeder • Adjusting feed ration based on requirements • Shifting and increasing feed ration per animal requirements • Providing fresh and clean water 			2.2 Provide proper temperature based on the Minimum Standards on the Welfare of Pigs GAHP 2.3 Check and adjust feeders to ensure proper functioning 2.4 Shift and increase feed ration based on animal requirements 2.5 Provide fresh and clean water at all times (adlibitum)	
<ul style="list-style-type: none"> • Monitoring animal condition <ul style="list-style-type: none"> - Weaners behavior • Monitoring uniformity of the litters • Deworming program of the weaners <ul style="list-style-type: none"> - Farm protocols • Implementation of vaccination program per veterinarian recommendations • Practicing OSHS 			LO 3. Maintain health of newly weaned piglets 3.1 Monitor animal condition following enterprise procedures 3.2 Monitor uniformity of litter following farm procedures 3.3 Deworm weaners based on farm protocols 3.4 Implement vaccination programs based on veterinary recommendations	TLE_AFAAPS9-12RWLS-Ic-e-26
<ul style="list-style-type: none"> • Updating weanling records • Monitoring weanling schedule • Monitoring production performance of weanlings 			LO 4. Record data 4.1 Update weanling records using standard enterprise 4.2 Monitor weaning schedule 4.3 Monitor production performance of weanlings according to enterprise procedures	TLE_AFAAPS9-12RWLS-Ie-f-27

K to 12 BASIC EDUCATION CURRICULUM
JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL - TECHNICAL-VOCATIONAL LIVELIHOOD TRACK
AGRI-FISHERY ARTS – ANIMAL PRODUCTION (SWINE) NC II
(320 Hours)

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
LESSON 8: PRODUCING FINISHER (PFR)				
<ul style="list-style-type: none"> • Selection of suitable grower for finisher pigs <ul style="list-style-type: none"> - Weight - Age • Cleaning and disinfection of finisher buildings • Adjustment and supplying materials and equipment • Grouping of the growers <ul style="list-style-type: none"> - Transferring of the growers minimum standard on the welfare of the pig and code of the GAHP • Practicing OSHS 	The students demonstrate an understanding of the underlying concepts and principles in producing finishers	The learners shall be able to produce finishers based on industry standards	LO 1. Prepare animals for finishing <ol style="list-style-type: none"> 1.1 Select suitable growers for finishing based on weight and age 1.2 Disinfect and clean finishers building following enterprise procedures 1.3 Adjust and supply materials and equipment according to the work requirements 1.4 Group growers based on industry standards and enterprise specifications 1.5 Transfer growers based on the Minimum Standards on the Welfare of Pigs and Code of Good Animal Husbandry Practices (GAHP) 	TLE_AFAAPS9-12PFR-If-h-28
<ul style="list-style-type: none"> • Cleaning pen and facilities • Hygienic procedures • Maintaining the proper temperature • minimum standards on the welfare of the pigs • code of GAHP • Checking drinker and adjustment • Standard height of drinker • Provision of enough space <ul style="list-style-type: none"> - Space requirements - Minimum Standards on the Welfare of Pigs - GAHP • Selection and isolation of weak animal 			LO 2. Maintain conducive atmosphere and facilities <ol style="list-style-type: none"> 2.1 Clean pen regularly following hygienic procedures 2.2 Provide and monitor proper temperature based on the minimum standards on the welfare of the pigs and GAHP 2.3 Check the height of the drinker and adjust to ensure proper functioning based on the Minimum Standard on the Welfare of Pigs and GAHP 2.4 Provide enough space based on the Minimum Standard on the welfare of Pigs and GAHP 2.5 Isolate weak animals based on industry standard 	TLE_AFAAPS9-12PFR-Ifi-j-IIa-29

K to 12 BASIC EDUCATION CURRICULUM
JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL - TECHNICAL-VOCATIONAL LIVELIHOOD TRACK
AGRI-FISHERY ARTS – ANIMAL PRODUCTION (SWINE) NC II
(320 Hours)

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<ul style="list-style-type: none"> • Inspection and adjustment of feeders • Feed and feeding <ul style="list-style-type: none"> - Feeding system • Adjustment of feeding ration and shifting • Withdrawal of medicated feeds per veterinarian instruction • Practicing OSHS 			<p>LO 3. Feed Finishers</p> <p>3.1 Check and adjust feeders to ensure proper functioning</p> <p>3.2 Feed animals according to a standard feeding system</p> <p>3.3 Adjust feed ration and shift based on farm protocols and physiological growth and veterinarian instruction</p> <p>3.4 Withdraw medicated feeds according to veterinarian’s instruction</p>	<p>TLE_AFAAPS9-12PFR-IIa-c-30</p>
<ul style="list-style-type: none"> • Monitoring the changes in: Behavior <ul style="list-style-type: none"> - Posture - Skin color - Respiration • Monitoring uniformity of stocks • Implementing vaccination and medication program 			<p>LO 4. Maintain herd health care and medication program</p> <p>4.1 Monitor changes in animal behavior following Animal Welfare Act and GAHP</p> <p>4.2 Monitor changes in posture of animal based on the Animal Welfare Act and GAHP</p> <p>4.3 Monitor changes in respiration of animal According to Animal Welfare Act and GAHP</p> <p>4.4 Monitor changes in skin color of the animal According to Animal Welfare Act and GAHP</p> <p>4.5 Monitor uniformity of the stocks</p> <p>4.6 Implement vaccination and medication programs based on the veterinarian instructions</p>	<p>TLE_AFAAPS9-12PFR-IIc-e-31</p>
<ul style="list-style-type: none"> • Care and management of the general herd • Selection of good finishers • Preparation of marketable animals <ul style="list-style-type: none"> - Age - Weight of finishers • Preparation of the loading facility and ramp 			<p>LO 5. Prepare animals for marketing</p> <p>5.2 Determine animal weight using weighing scale</p> <p>5.3 Prepare marketable animals and reserved following marketing requirements and procedures</p> <p>5.4 Prepare loading facility and ramp with reference to Animal Welfare Act</p>	<p>TLE_AFAAPS9-12PFR-IIf-h-32</p>

K to 12 BASIC EDUCATION CURRICULUM
JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL - TECHNICAL-VOCATIONAL LIVELIHOOD TRACK
AGRI-FISHERY ARTS – ANIMAL PRODUCTION (SWINE) NC II
(320 Hours)

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<ul style="list-style-type: none"> • Moving animal in the loading facility <ul style="list-style-type: none"> - Animal Welfare Act • Cleaning and disinfecting the transport vehicle <ul style="list-style-type: none"> - GAHP 			5.5 Move the animal to loading facility following the Animal Welfare Act 5.6 Clean and disinfect the transportation vehicle prior to entering farm premises in the line with GAHP	
<ul style="list-style-type: none"> • Updating finishing records • Monitoring production parameters for finishers 			LO 6. Record Data 6.1 Update finishing records following enterprise protocol 6.2 Monitor production parameters for finishers with reference to production requirements	TLE_AFAAPS9-12PFR-IIi-33
LESSON 9: MAINTAINING HEALTHY ANIMAL ENVIRONMENT (MHAЕ)				
<ul style="list-style-type: none"> • Measurement of relative humidity <ul style="list-style-type: none"> - Calibration using hydrometer • Methods of maintaining relative humidity • Adjustment of blowers and curtains • Following monitoring schedules for reading the relative humidity 	The students demonstrate an understanding of the underlying concepts and principles in maintaining healthy animal environment	The students shall be able to maintain healthy animal environment based from standard procedure	LO 1. Maintain relative humidity 1.1 Measure relative humidity using hygrometer for calibration 1.2 Adjust curtains and blowers following production requirements 1.3 Follow monitoring schedules for RH readings according to work plan	TLE_AFAAPS9-12MHAЕ-IIj-IIIa-34
<ul style="list-style-type: none"> • Measuring temperature <ul style="list-style-type: none"> - Using thermometer - Methods of controlling temperature - Monitoring temperature • Adjusting curtains, blowers, and window shutters to control temperature 			LO 2. Control temperature 2.1 Measure temperature using thermometer 2.2 Adjust curtains, blowers, and window shutter following production requirements 2.3 Follow monitoring schedule for temperature reading according to work plan 2.4 Implement contingency procedure in extreme condition	TLE_AFAAPS9-12MHAЕ-IIIa-c-35

K to 12 BASIC EDUCATION CURRICULUM
JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL - TECHNICAL-VOCATIONAL LIVELIHOOD TRACK
AGRI-FISHERY ARTS – ANIMAL PRODUCTION (SWINE) NC II
(320 Hours)

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<ul style="list-style-type: none"> • Following monitoring schedule for temperature reading • Implementation of contingency measures 				
<ul style="list-style-type: none"> • Evaluation of air quality <ul style="list-style-type: none"> - Sensory means • Identification of common air pollutants • Identification, neutralizing, and removal of sources of air pollutants <ul style="list-style-type: none"> - DENR standards • Referring affected animals to veterinarian • Reporting and referring affected animals 			<p>LO 3. Sustain air quality</p> <p>3.1 Evaluate approximate air quality using sensory means</p> <p>3.2 Recognize common air pollutants following standard procedure</p> <p>3.3 Identify neutralize and remove sources of air pollutants according to DENR standards</p> <p>3.4 Refer affected animals to veterinarian</p>	<p>TLE_AFAAPS9-12MHAE-IIIc-e-36</p>
<ul style="list-style-type: none"> • Observation of schedule for routine testing of water <ul style="list-style-type: none"> - Procedures in testing water - Work plan • Collection of water sample • Submission of water sample for testing to authority • Regular cleaning and disinfection of tanks and pipes 			<p>LO 4. Sustain water quality</p> <p>4.1 Observe schedule for routine testing of water according to work plan</p> <p>4.2 Collect water sample properly according to establish protocol</p> <p>4.3 Submit water sample for testing to authority</p> <p>4.4 Regularly clean and disinfect pipes and tanks according to established protocols</p>	<p>TLE_AFAAPS9-12MHAE-IIIh-f-37</p>
<ul style="list-style-type: none"> • Implementation of curtain management per animal requirements • Procedures of maintaining blower 			<p>LO 5. Maintain ventilation</p> <p>5.1 Perform curtain management according to the animal requirements</p> <p>5.2 Do the maintenance of blower regularly</p>	<p>TLE_AFAAPS9-12MHAE-IIIh-i-38</p>

K to 12 BASIC EDUCATION CURRICULUM
JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL - TECHNICAL-VOCATIONAL LIVELIHOOD TRACK
AGRI-FISHERY ARTS – ANIMAL PRODUCTION (SWINE) NC II
(320 Hours)

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<ul style="list-style-type: none"> • Eliminating of breeding place of vermin • Disposal of farm wastes <ul style="list-style-type: none"> - Farm waste attracts vermin • Inspection and maintenance of perimeter fences <ul style="list-style-type: none"> - Prevention of entry of stray animals • Application of chemicals to control vermin according to FPA guidelines • Elimination of mosquito breeding grounds 			<p>LO 6. Control Vermin</p> <p>6.1 Eliminate breeding places of vermin following enterprise procedure</p> <p>6.2 Properly dispose of farm waste that attracts vermin</p> <p>6.3 Check and repair perimeter fences routinely to prevent entry of stray animals</p> <p>6.4 Apply appropriate chemicals according to the FPA guidelines</p> <p>6.5 Eliminate mosquito breeding grounds following standard procedures</p>	<p>TLE_AFAAPS9-12MHAe-IIIj-IVb-39</p>
LESSON 10: APPLYING BIO-SECURITY MEASURES (ABSM)				
<ul style="list-style-type: none"> • Identifying immediate threats on animal health <ul style="list-style-type: none"> - Reporting to immediate authority • Identification of bio-security threats <ul style="list-style-type: none"> - Organizational policy 	<p>The students demonstrate an understanding on the underlying concepts and principles in applying bio-security measures</p>	<p>The students shall be able to apply bio-security measures based on standard operating procedures</p>	<p>LO 1. Identify bio-security threats and hazards</p> <p>1.1 Identify immediate threats to the health of the animal and report to immediate authority</p> <p>1.2 Identify bio-security threats based on established organizational policy</p>	<p>TLE_AFAAPS9-12ABSM-IVc-e-40</p>
<ul style="list-style-type: none"> • Disinfection of supplies and materials • Preparation and monitoring of vehicle and foot baths disinfection according to standard operating procedures • Following sanitation and hygiene practices according to standard operating practices 			<p>LO 2. Apply disease prevention practices</p> <p>2.1 Prepare and apply disinfectants according to the standard operating procedure</p> <p>2.2 Prepare and monitor vehicle and footbath disinfection regularly according to standard operating practices</p> <p>2.3 Follow the hygiene and sanitation of farm personnel and visitors based on the standard operating practices</p>	<p>TLE_AFAAPS9-12ABSM-IVe-g-41</p>

K to 12 BASIC EDUCATION CURRICULUM
JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL - TECHNICAL-VOCATIONAL LIVELIHOOD TRACK
AGRI-FISHERY ARTS – ANIMAL PRODUCTION (SWINE) NC II
(320 Hours)

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<ul style="list-style-type: none"> • Disinfection of all types of vehicles and equipment entering the farm • Quarantine and vaccination of new stock be introduced into the herd • Implementation of vaccination and health program per instruction of veterinarian 			2.4 Disinfect all types of vehicle and equipment entering the farm according to standard operating procedures 2.5 Quarantine and vaccinate the new stocks to be introduced into the herd according to standard operating procedures 2.6 Implement vaccination and health program as instructed by veterinarian	
<ul style="list-style-type: none"> • Collection and preparation of sample <ul style="list-style-type: none"> - Serological monitoring of notifiable diseases • Application preventive measures on notifiable diseases <ul style="list-style-type: none"> - Bureau of Animal Industry (BAI) declaration • Following medication and vaccination programs per instruction of veterinarian • Culling sick and unfit stocks <ul style="list-style-type: none"> - Sick and unfit stock - Isolation - Culling • Disposal of dead stocks and by-products <ul style="list-style-type: none"> - Disposal method - Safety precautions • Cleaning and disinfection of tools and equipment <ul style="list-style-type: none"> - Hygiene and sanitation • Standard Operating procedure (SOP) 			LO. 3. Apply preventive disease transmission practices 3.1 Collect and prepare sample for serological monitoring of notifiable diseases 3.2 Follow the preventive measures on notifiable diseases as declared by BAI based on the industry standards 3.3 Follow medication and vaccination strictly as recommended by manufacturer and veterinarian 3.4 Cull and isolate sick and unfit animal in accordance with Animal Welfare Act and standard operating procedures 3.5 Dispose of dead stocks and by- products properly 3.6 Clean and disinfect properly tools and equipment used in handling sick and dead animals 3.7 Communicate regularly with a supervising veterinarian or supervisor based on industry standards	TLE_AFAAPS9-12ABSM-IVh-i-42

K to 12 BASIC EDUCATION CURRICULUM
JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL - TECHNICAL-VOCATIONAL LIVELIHOOD TRACK
AGRI-FISHERY ARTS – ANIMAL PRODUCTION (SWINE) NC II
(320 Hours)

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<ul style="list-style-type: none"> • Implementation of vaccination and health programs • Regular communication with veterinarian 				
<ul style="list-style-type: none"> • Collecting and updating of record <ul style="list-style-type: none"> - Sample checklist • Reporting to veterinarian or immediate supervisor 			<p>LO 4. Maintain records</p> <p>4.1 Collect and update appropriate records in checklist format accordance with organizational policy</p> <p>4.2 Report to veterinarian or supervisor according to industry standards</p>	<p>TLE_AFAAPS9-12ABSM-IVj-43</p>

K to 12 BASIC EDUCATION CURRICULUM
JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL - TECHNICAL-VOCATIONAL LIVELIHOOD TRACK
AGRI-FISHERY ARTS – ANIMAL PRODUCTION (SWINE) NC II
(320 Hours)

RESOURCES			METHODOLOGY	ASSESSMENT METHOD
TOOLS	EQUIPMENT	MATERIALS		
<ul style="list-style-type: none"> • AI Catheters • First Aid kit • Training bag • Shovel • Sandbag • Toot clipper • Scalpel and blade 	<ul style="list-style-type: none"> • Microscope • Personal Protective Paraphernalia (scrub suits, powder-free vinyl gloves, rubber boots) • Laboratory gown • Camera • Power sprayer • Generator set • Refrigerator (16–17°C) • Fire extinguisher • Audiovisual equipment • Whiteboard • Chairs and tables • Computer • Printer • Dryer-sterilizer • Semen transport box 	<ul style="list-style-type: none"> • Semen bottles • Female reproductive organ specimens • Pail and dipper • Hose • Isopropyl alcohol (70%) • Germicidal soap • Paper towels • Glass slides • Cover slips • Trash can • Disposal waste bags • Broomstick • Brooms • Brush • Board marker • Pencil/ballpen • Bond paper • Pheromones • Semen (for the snout for heat detection) • Prewarmed collecting cup • Semen filter • Distilled water • Plastic gloves • Lubricant • Laboratory thermometer • Antibiotics • Iodine solution 	<ul style="list-style-type: none"> • Self-paced/modular • Lecture/Discussion • Interaction • Practical Demonstration • Visit/tour • Practical Exercise • Hands on • Videos/ Illustrations • Demonstration 	<ul style="list-style-type: none"> • Written examination • Interview/Oral evaluation • Demonstration with questions Actual demonstration • Demonstration of practical skills • Direct observation

K to 12 BASIC EDUCATION CURRICULUM
JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL - TECHNICAL-VOCATIONAL LIVELIHOOD TRACK
AGRI-FISHERY ARTS – ANIMAL PRODUCTION (SWINE) NC II
(320 Hours)

GLOSSARY

Animal Production	- A science that deals with the production and management of livestock or domestic animals
Ad Libitum	- Refers to feeding without limit
Animal Health Management	- A system designed to optimize the health and welfare of the animals. It includes prevention, and treatment and control of diseases and adverse conditions.
Animal Welfare Act of 1998	- Law that protects and promotes the welfare of animals in the Philippines
Backing board	- A board used in herding pigs
Backyard piggery	- Raising less than 20 sows; usually dependent on a commercial feed mills for feeds
Barrow	- A male swine, castrated (testicles removed), before it reaches sexual maturity
Biosecurity	- A set of measures designed to maintain a flock or herd at a particular health status and to prevent the entry or exit of specific infectious agents
Boar	- Uncastrated male swine usually kept for breeding
Breed	- A group of animals with specific traits or common characteristics
Canvass slapper	- Equipment used in herding pigs so called for the slapping sounds it makes
Caretaker	- Person assigned to take care of the animals and the farm
Castration	- Any action, surgical, chemical, or otherwise, by which a male loses the functions of his testicles or a female loses the functions of her ovaries; also referred to as gelding, spaying, neutering, fixing, orchiectomy, and oophorectomy
Chill factor	- The environmental temperature of 25°C or below, which is injuriously cold and causes piglet to shiver
Colostrum	- The first milk after farrowing which is rich in antibodies
Cold stress	- Stress/suffering caused by exposure to cold temperatures
Commercial piggery	- Farm raising more than 20 sows
Culling	- Separation/segregation of undesirable animals
Dam	- General term for female parent
Disinfectant	- Substance used to destroy bacteria or other infectious microorganisms
Distress	- The nonspecific response of the animal caused by deprivation of food, rough handling, exhaustion due to long transport, mixing of animals reared separately, etc.
Dry sow	- A sow whose litter has been weaned, but which has not yet been bred or is not pregnant
Drug	- All chemical substances that are used to promote or safeguard the health of human and animals
Dummy sow	- Man-made sow used only in training boar for mounting and for semen collection

K to 12 BASIC EDUCATION CURRICULUM
JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL - TECHNICAL-VOCATIONAL LIVELIHOOD TRACK
AGRI-FISHERY ARTS – ANIMAL PRODUCTION (SWINE) NC II
(320 Hours)

Ear notching	- The identification of pigs by cutting a portion of their ear
Equipment	- Power tools and machines used in animal production
Estrus	- Period of time when the female will accept male; also known as heat period
Farrowing	- The act of giving birth; pertains to swine
Farrowing facilities	- A pen/stall/crate used for the sows during farrowing or giving birth
Feed	- Edible materials that are consumed by animals and thus contribute energy or nutrients to the animal diet
Feeding	- The process of giving feeds to an animal
Fostering	- The adoption of animals during early suckling stage
GAHP	- Good Animal Husbandry Practices
Gestation period	- The period of carrying the young in the womb
Gilt	- A young female hog that has not yet given birth
Husbandry	- The act of taking care of animals
Immunization	- Disease prevention by providing appropriate vaccines to animals
Inbreeding	- Mating of closely related animals in a herd
Isolation	- Process of separating animal from the group to prevent the spread of diseases
Lactation	- The process of milk secretion
Licensed Veterinarian	- A person who graduated from a veterinary college with the degree in Veterinary Medicine, is duly registered with the Professional Regulation Commission (PRC) and holds a Professional Tax Receipt (PTR), both of which must be current
Livestock	- Domestic animals kept for use on a farm and raised for sale and profit
Litter	- The offspring at one birth of a multiparous animal such as swine
Litter Size	- The aggregate number of piglets per farrowing
Loading Ramp	- The walkway from pen to trucks and vice versa
Mechanical probe	- Equipment used to measure fat or detect pregnancy
Needle/Milk Teeth	- Temporary or insidious teeth
Nutrients	- Food elements or substances found in feeds such as protein, carbohydrates, fats, and others
Estrus	- The period in heat or period of acceptance of the boar by the sow
Piglet	- Young pig of either sex
Pure breeding	- The mating of unrelated individuals in the same breed
Ration	- The total amount of feeds taken in by an animal during a 24-hour period
Selection	- The process of choosing males and females with desirable characteristics either for breeding or replacement stocks
Slaughter	- The killing of food animals in accredited slaughterhouses in relation to meat inspection and animal welfare

K to 12 BASIC EDUCATION CURRICULUM
JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL - TECHNICAL-VOCATIONAL LIVELIHOOD TRACK
AGRI-FISHERY ARTS – ANIMAL PRODUCTION (SWINE) NC II
(320 Hours)

- Sow - A mature female hog that had given birth
- Stocking density - The rate or number of animals per given area
- Stunning - The rendering of a state of immediate insensibility delivered to the animal which should persist until the animals are slaughtered and become permanently insensible. Methods employed include percussive, electrical, and gas stunning.
- Swine - A collective term for hogs
- Tail docking - The cutting of a portion of the tail
- Tail/ear biting - The physical reaction of animals, which consists of biting the ears/tails of other animals, to mineral deficiency/overcrowding, etc.
- Tethering - Confining animals to a certain area by roping
- Treatment - The management and care of sick animals by administering proper medicine
- Unfit animal - A sick or physically unfit animal
- Vaccination - The administration of antigenic material to elicit a response from the immune system
- Waterer - Equipment used in providing water to animal
- Weaning - Process of separating the young from each dam
- Weanling - Newly separated piglets from each dam after the lactating period

K to 12 BASIC EDUCATION CURRICULUM
JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL - TECHNICAL-VOCATIONAL LIVELIHOOD TRACK
AGRI-FISHERY ARTS – ANIMAL PRODUCTION (SWINE) NC II
(320 Hours)

CODE BOOK LEGEND

Sample: **TLE_APS9-12PWC-Ia-1**

LEGEND		SAMPLE		DOMAIN / COMPONENT	CODE
First Entry	Learning Area and Strand/ Subject or Specialization	Agri-Fishery Arts Animal Production (Swine) NC II	TLE_ APS	Common Competencies	
	Grade Level	9 to 12	9-12	Applying Safety Measures in Farm Operations	ASMFO
Uppercase Letter/s	Domain/ Content/ Component/ Topic	Applying Safety Measures in Farm Operations	ASMFO	Using Farm Tools and Equipment	UFTE
				Performing Estimation and Basic Calculation	PEBC
				Processing Farm Waste	PRW
				Core Competencies	
Roman Numeral *Zero if no specific Quarter	Quarter	First Quarter	I	Handling Breeders	HBR
Lower case letter/s *put an en dash (–) between letters to indicate more than a specific week	Week	Week one	a-b	Handling Farrowing Sows and Sucklings	HFSS
				Raising Weanlings	RWLS
				Producing Finisher	PFR
				Maintaining Healthy Animal Environment	MHAE
				Applying Bio-Security Measures	ABSM
Arabic Number	Learning Competency	Determine areas of concern for safety measures	1		

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.

**K to 12 BASIC EDUCATION CURRICULUM
 JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL - TECHNICAL-VOCATIONAL LIVELIHOOD TRACK
 AGRI-FISHERY ARTS – ANIMAL PRODUCTION (SWINE) NC II
 (320 Hours)**

SAMPLE AGRICULTURE AND FISHERY ARTS CURRICULUM MAP (updated as of May 2016)**

GRADE 7/8 (EXPLORATORY)			GRADES 9-12				
EXPLORATORY	Agricultural Crops Production (NC I)		4 sems				
	Agricultural Crops Production (NC II) ⁺ <small>updated based on TESDA Training Regulations published on December 28, 2013</small>					8 sems	
	*Agricultural Crops Production (NC III)					8 sems	
	Landscape Installation and Maintenance (NC II)		4 sems	Organic Agriculture (NC II)			4 sems
	Pest Management (NC II)		4 sems	Rice Machinery Operation (NC II)			4 sems
	Animal Production (Swine) (NC II) ⁺ <small>updated based on TESDA Training Regulations published on December 28, 2013</small>		4 sems	*Artificial Insemination: Swine (NC II)	2 sems	*Slaughtering Operations (Hog/Swine/Pig) (NC II)	2 sems
	Animal Production (Large Ruminants) (NC II) ⁺ <small>updated based on TESDA Training Regulations published on December 28, 2013</small>		4 sems	*Artificial Insemination: Large Ruminants (NC II)	2 sems	Fish Wharf Operation	2 sems
	Animal Production (Poultry-Chicken) (NC II) ⁺ <small>updated based on TESDA Training Regulations published on December 28, 2013</small>		4 sems	*Animal Health Care Management NC III		4 sems	
	Rubber Production (NC II)		4 sems	Rubber Processing (NC II)			4 sems
				*Horticulture (NC III)		8 sems	
				Food Processing (NC II)		8 sems	
				Fish Capture (NC II)		8 sems	
				Aquaculture (NC II)		8 sems	
Fish-Products Packaging (NC II)		4 sems	Fishing Gear Repair and Maintenance (NC III)			4 sems	

* Please note that these subjects have pre-requisites mentioned in the CG.
 + CG updated based on new Training Regulations of TESDA.
 Other specializations with no prerequisites may be taken up during these semesters.

****This is just a sample. Schools make their own curriculum maps considering the specializations to be offered. Subjects may be taken up at any point during Grades 9-12.**

K to 12 BASIC EDUCATION CURRICULUM
JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL - TECHNICAL-VOCATIONAL LIVELIHOOD TRACK
AGRI-FISHERY ARTS – ANIMAL PRODUCTION (SWINE) NC II
(320 Hours)

Reference:

Technical Education and Skills Development Authority-Qualification Standards Office. *Training Regulations for Animal Production Production (Swine) NC II*. Taguig City, Philippines: TESDA, 2013.