



Republic of the Philippines

Department of Education

DepEd Complex, Meralco Avenue, Pasig City

STRENGTHENED SENIOR HIGH SCHOOL CURRICULUM

SWINE PRODUCTION

Grade 11/12

Course Description:

This course equips learners with essential skills in Swine Production, focusing on swine production according to industry standards. The course includes breeding management of sows and boars, health and care management on the different stages of swine production, harvesting and post harvesting, record keeping, and marketing in swine production. After completing the course, learners are eligible to take assessments to earn the National Certificate Level II in Animal Production (swine). They may also pursue higher education or careers in the animal production (swine) industry.

Elective: Technical Professional

Prerequisite: None

Time Allotment: In Grade 11, 320 hours for two semesters, 8 hours per week. In Grade 12, 320 hours for one semester, 16 hours per week

Schedule: First/Second Semester

QUARTER 1

CONTENT STANDARD:	The learners demonstrate an understanding of principles in the overview of swine production, Occupational Safety and Health Standards, and tools, materials, and equipment used in swine production according to industry standards.
PERFORMANCE STANDARD:	The learners perform waste management using tools, materials, and equipment.
LEARNING COMPETENCIES	CONTENTS
1. Discuss the overview of Swine Production	Overview of Swine Production <ul style="list-style-type: none"> • Brief background of swine production industry • Terminologies used in swine production • Importance of swine production in agriculture and economy • Anatomy and physiological requirements of swines • Trends and challenges of raising swines in the Philippines • Natural way of swine production • Career and business opportunities in swine production • Regulations and ordinances in swine production

	<ul style="list-style-type: none"> ○ environmental regulations ○ animal welfare and biosecurity ○ zoning and land use regulations ○ food safety and public health ○ business and labor laws ○ recent updates and additional ordinances ● Agencies that regulate swine production <ul style="list-style-type: none"> ○ Department of Agriculture (DA) ○ Department of Environment and Natural Resources (DENR) ○ Department of Health (DOH) ○ Local Government Units (LGUs) ○ Other regulatory bodies <p>Occupational Safety and Health Standards in Swine Production</p> <ul style="list-style-type: none"> ● Introduction to Occupational Safety and Health Standards (OSHS) ● Hazards in swine production ● Preventive measures ● Health and safety training ● Emergency preparedness
<p>2. Identify the different tools, materials, and equipment in swine production and its functions in accordance with the industry standards</p>	<p>Tools, Materials, and Equipment in Swine Production</p> <ul style="list-style-type: none"> ● Importance of tools and equipment ● Basic tools for swine production ● Feeding equipment ● Health management tools ● Handling and transport equipment ● Waste management tools
<p>3. Perform waste management in swine production</p>	<p>Animal Waste Management and Utilization</p> <ul style="list-style-type: none"> ● Composting ● Biogas production ● Processing animal waste into organic fertilizer

	<ul style="list-style-type: none"> Reducing environmental impact through sustainable practices
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QUARTER 2

CONTENT STANDARD:	The learners demonstrate an understanding in swine housing, breed selection, and breeding management for efficient and sustainable production of industry standards.
PERFORMANCE STANDARD:	The learners perform breeding management of sows and boars according to industry standard.
LEARNING COMPETENCIES	CONTENTS
1. Design housing based on the selected stage of swine production	Housing Requirements for Different Stages of Swine Production <ul style="list-style-type: none"> Site selection Layout / design in constructing swine house Space requirements of different stages
2. Identify the breeds of swines and consideration for breed selection in the Philippines	Different Common Breeds of Swine in the Philippines Consideration in Breed Selection <ul style="list-style-type: none"> Characteristics and purpose Genetic potential Physical characteristics Reproductive traits Market demand
3. Perform breeding management of sows and boars	Breeding Management of Sows and Boars <ul style="list-style-type: none"> Criteria of selecting breeder sows and boars Mating <ul style="list-style-type: none"> natural Artificial Insemination (AI) Breeding systems Sow breeding management <ul style="list-style-type: none"> flushing and advantage of flushing heat detection technique signs of estrus estrus cycle of sows / gilts pregnancy detection techniques

	<ul style="list-style-type: none"> ○ culling management of swine • Boar breeding management <ul style="list-style-type: none"> ○ boar reproductive maturity and libido management ○ boar Rotation in natural mating system ○ culling management of boars
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QUARTER 3

CONTENT STANDARD: The learners demonstrate an understanding of health and care management practices across the stages of swine production.	
PERFORMANCE STANDARD: The learners perform health and care management on the different stages of swine production according to industry standards.	
LEARNING COMPETENCIES	CONTENTS
1. Perform health and care management on the different stages of swine production	Gestation of Gilts/ Sows <ul style="list-style-type: none"> • Signs of gestation • Feeding from mating until farrowing • Hygiene and sanitation
4. Perform farrowing care activities	Farrowing <ul style="list-style-type: none"> • Signs of farrowing • Causes of difficult farrowing • Preparations for farrowing <ul style="list-style-type: none"> ○ bathing ○ disinfection ○ transfer of sow ○ tools and materials • Post-farrowing care <ul style="list-style-type: none"> ○ piglet ○ sow

	<p>Suckling</p> <ul style="list-style-type: none"> • Iron supplementation • Castration
5. Discuss lactating management practices of sows and suckling	<p>Lactating Sows</p> <ul style="list-style-type: none"> • Nutrient requirements for lactating sows and suckling • Feeding practices during lactation period
6. Manage weaning of piglets	<p>Weaning</p> <ul style="list-style-type: none"> • Process of weaning piglets <ul style="list-style-type: none"> ○ weaning-associated stress responses ○ positive behavioral response • Raise weanling <ul style="list-style-type: none"> ○ types of feeds ○ methods of feeding • Nutritional requirements
7. Perform proper care and management of growing and finishing phase of pigs	<p>Growing and Finishing Phase of Pigs</p> <ul style="list-style-type: none"> • Selection of pigs suitable for starter pig • Maintain conducive atmosphere and facilities • Feeds and feeding <ul style="list-style-type: none"> ○ nutritional requirements ○ feed types ○ feeding strategies

QUARTER 4

CONTENT STANDARD:	The learners demonstrate an understanding of Health Management, Record Keeping, Harvesting and post-harvest Management and Marketing in swine production in compliance with industry requirements.
PERFORMANCE STANDARD:	The learners perform health management, harvesting and post harvesting, record keeping and marketing in swine production according to industry standard.

LEARNING COMPETENCIES	CONTENT
1. Perform health management in swine production with the supervision of veterinarians	Health Management in Swine Production <ul style="list-style-type: none"> • Proper use of veterinary tools in swine production • Physiological requirements of swines <ul style="list-style-type: none"> ○ nutritional needs ○ water requirements ○ environmental factors ○ growth and reproductive health considerations • Common swine diseases <ul style="list-style-type: none"> ○ signs and symptoms • Disease Prevention and Control <ul style="list-style-type: none"> ○ Vaccination / immunization and supplements administration ○ Antibiotic administration ○ Deworming ○ Quarantine and biosecurity measures ○ Sanitation and disinfection
2. Record activities in swine production	Record Keeping in Swine Production <ul style="list-style-type: none"> • Inventory of tools, materials, supplies and equipment • Growth and performance records • Breeding records • Health records • Financial records
3. Perform harvesting and post harvesting activities of swine production	Harvesting and Post-Harvesting Management <ul style="list-style-type: none"> • Harvesting considerations of swine <ul style="list-style-type: none"> ○ Age and weight of swine ○ Market demand of swine ○ Health and condition of swine • Post- harvest handling <ul style="list-style-type: none"> ○ Meat processing ○ Packaging and storage
4. Perform marketing in swine production	Marketing of Swine Products <ul style="list-style-type: none"> • Market trends and demands

	<ul style="list-style-type: none"> ○ raw products ○ processed products • Cost and return analysis <ul style="list-style-type: none"> ○ Importance ○ Breakdown of costs ○ Revenue potential ○ Profitability assessment and financial forecasting
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GLOSSARY

barrow – a male swine, castrated (testicles removed) before it reaches sexual maturity

boar – uncastrated male swine usually kept for breeding

crossbreed – a group of animals produced by mating two or more different breeds or strains of animals

culling – is the removal of undesirable or inferior animals in the herd based on important economic traits and overall performance

dry sow – a sow whose litter has been weaned but which has not yet been bred or is not pregnant

estrus – period of time when the female will accept male also known as heat period

farrowing – the act of giving birth in pigs or swine

gestation period – refers to the period of carrying the young in the womb

gilt – a young female hog that has not given birth yet

immunization – prevention of diseases by providing appropriate vaccines to animals

inbreeding – mating of closely related animals in a herd

livestock – domestic animals kept for use on a farm and raised for sale and profit

litter – the offspring at one birth of a multiparous or animal-like swine

litter size – refers to the aggregate number of piglets per farrowing

nutrients – food elements or substance found in the feeds such as protein, carbohydrates, fats and others

pure breeding – mating of the unrelated individuals in the same breed

ration – the total amount of feeds taken in by an animal during a 24-hour period

selection – refers to the process of choosing males and females with desirable characteristics either for breeding

sow – a mature female hog that had given birth

swine – a collective term for hogs

weaning- the process of separating piglets from their sow and transitioning them from milk to a plant- based diet

veterinarian- a person qualified to treat diseased or injured animals

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LIST OF TOOLS, MATERIALS, AND EQUIPMENT

Tools	Materials	Equipment
electric lamps	sacks	generator
pail	feeds	weighing scale
knapsack sprayer	veterinary drugs	feed bin
weighing scale (500 kg. cap.)	dewormer	feed cart
syringes (5 to 20ml cap.)	supplements	power sprayer
	semen bottles	fire extinguisher
	female reproductive organ specimens	white board
	hose	chairs and tables
	germicidal soap	dryer-sterilizer
	paper towels	semen transport box
	isopropyl alcohol (70%) glass slides	PPE: <ul style="list-style-type: none"> o dust coats o mask o hand gloves o boots o rain coats o fire extinguisher · foot baths
	trash can	
	disposal waste bags	
	broomstick	
	brooms	
	brush	Models/Actual objects
	semen (for the snout for heat detection)	practice animals (boar)

	lubricant	practice animals (sow/gilt)
	nutrient agar plates	dummy sow
	laboratory thermometer	
	damp cloth/ used newspaper	
	tissue paper	
	Learning materials	
	training manuals	
	animal charts	
	video materials	
	forms(animal information sheets, sow card, boar card)	