

**K to 12 BASIC EDUCATION CURRICULUM**  
**JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK**  
**AGRI-FISHERY ARTS – RICE MACHINERY OPERATIONS**

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

	<b>Specialization</b>	<b>Number of Hours</b>	<b>Pre-requisite</b>
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	

**K to 12 BASIC EDUCATION CURRICULUM  
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 AGRI-FISHERY ARTS – RICE MACHINERY OPERATIONS**

		<b>Specialization</b>	<b>Number of Hours</b>	<b>Pre-requisite</b>
1.	<b>ICT</b>	Computer Hardware Servicing (NC II)	320 hours	
2.		Animation (NC II)	320 hours	
3.		Computer Programming (NC IV)	320 hours	
4.		Contact Center Services (NC II)	320 hours	
5.		Illustration (NC II)	320 hours	
6.		Medical Transcription (NC II)	320 hours	
7.		Technical Drafting (NC II)	320 hours	
1.	<b>INDUSTRIAL ARTS</b>	Automotive Servicing (NC I)	640 hours	
2.		Carpentry (NC II)	640 hours	
3.		Consumer Electronics Servicing (NC II)	640 hours	
4.		Electrical Installation and Maintenance (NC II)	640 hours	
5.		Masonry (NC II)	320 hours	
6.		Plumbing (NC I)	320 hours	
7.		Plumbing (NC II)	320 hours	Plumbing (NC I)
8.		Refrigeration and Airconditioning Servicing (NC II)	640 hours	
9.		Shielded Metal Arc Welding (NC I)	320 hours	
10.		Shielded Metal Arc Welding (NC II)	320 hours	Shielded Metal Arc Welding (NC I)
11.		Tile Setting (NC II)	320 hours	

**K to 12 BASIC EDUCATION CURRICULUM**  
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**AGRI-FISHERY ARTS – RICE MACHINERY OPERATIONS**

(160 hours)

**Prerequisite:** Crop Production

**Course Description:**

This course is designed to enhance the knowledge, skills and attitudes of a high school student for **Rice Machinery Operations**. The core competencies are as follows: (1) preparation of rice land machinery and equipment, (2) operation of rice crop establishment machinery and equipment (3) operation of rice crop care machinery and equipment, (4) operation of rice harvesting and threshing machinery and equipment, (5) operation of rice drying machinery and equipment, and (6) operation of rice mill machinery and equipment.

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<b>Introduction</b> 1. Support rice production work 2. Support rice mechanization 3. Career opportunities	The learner demonstrates an understanding of principles and practices in rice machinery operations.	The learner independently performs core competencies in rice machinery operations as prescribed by TESDA Training Regulations.	1. Explain the rice farming system 2. Explain the methods and practices in preparing rice land machinery and equipment 3. Explain the methods and practices in operating crop establishment machinery 4. Explain the methods and practices in operating rice crop care machinery and equipment 5. Explore job opportunities in rice machinery operations	
<b>PERSONAL ENTREPRENEURIAL COMPETENCIES (PECS)</b>				
1. Assessment of Personal Competencies and Skills (PECs) vis-à-vis a practicing entrepreneur/employee in the province 1.1. Characteristics 1.2. Attributes 1.3. Lifestyle 1.4. Skills 1.5. Traits 2. Analysis of PECs in relation to a practitioner 3. Align, strengthen and develop ones PECs based on the results	The learner demonstrates an understanding of one’s Personal Competencies and Skills (PECs) in rice machinery operations.	The learner recognizes his/her Personal Entrepreneurial Competencies and Skills (PECs) and prepares an activity plan that aligns with the PeCS of a practitioner/entrepreneur in Rice Machinery Operations.	<b>LO 1. Recognize Personal Entrepreneurial Competencies and Skills (PECs) needed in Rice Machinery Operations</b> 1.1. Assess one’s PECs: characteristics, attributes, lifestyle, skills, traits 1.2. Assess practitioner’s: characteristics, attributes, lifestyle, skills, traits 1.3. Compare one’s PECSS with that of a practitioner /entrepreneur 1.4. Align one’s PECSS with that of a practitioner/entrepreneur	<b>TLE_PECs9-12-00-1</b>

**K to 12 BASIC EDUCATION CURRICULUM**  
**JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK**  
**AGRI-FISHERY ARTS – RICE MACHINERY OPERATIONS**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<b>ENVIRONMENT AND MARKET (EM)</b>				
Market (Province) 4. Key concepts of a Market 5. Players in the Market (Competitors) 6. Products & services available in the market  Market (Customer) 7. Key concepts in Identifying and Understanding the Consumer 8. Consumer Analysis through: 8.1. observation 8.2. interviews 8.3. focus group discussions (FGD) 8.4. survey  9. Generating Business Ideas 9.1. Key concepts in generating business ideas 9.2. knowledge, skills, passions, and interests 9.3. new application 9.4. irritants 9.5. striking ideas (new concept) 9.6. Serendipity Walk	The learner demonstrates an understanding of the concepts <i>environment</i> and <i>market</i> and how they relate to rice machinery operation in one's province.	The learner independently creates a business vicinity map reflective of the potential rice machinery operations market within the province.	<b>LO 1. Recognize and understand the market in Rice Machinery Operations</b> 1.1. Identify the players/competitors within the town 1.2. Identify the different products/services available in the market	<b>TLE_EM9-12-00-1</b>
			<b>LO 2. Recognize the potential customer/market in Rice Machinery Operations</b> 2.1. Identify profile of potential customers 2.2. Identify the customer's needs and wants through consumer analysis 2.3. Conduct consumer/market analysis	<b>TLE_EM9-12-00-2</b>
			<b>LO 3. Create new business ideas in Rice Machinery Operations by using various techniques</b> 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	<b>TLE_EM9-12-00-3</b>

**K to 12 BASIC EDUCATION CURRICULUM**  
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**AGRI-FISHERY ARTS – RICE MACHINERY OPERATIONS**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<b>QUARTER 1</b>				
<b>Lesson 1: Operate Rice Land Preparation Machinery and Equipment (LP)</b> ( <i>Note: Research components should be included in all activities</i> )				
1.Types and selection of materials, tools, machineries and equipment 2.Routine check-up of tools and equipment 3.Manual handling procedures and techniques 4.Personal protective equipment (PPE) and occupational health and safety (OHS) requirements 5.Common OHS hazards, risks and their control	The learner demonstrates an understanding of the principles and practices associated with the preparation of rice land machinery and equipment.	The learner operates farm tools, machineries and equipment in rice land preparation,	<b>LO 1. Prepare materials, tools and operate machine and equipment for rice land preparation work</b> 1.1. Assess field or area 1.2. Identify the required materials, machinery, tools and equipment according to lists provided and/or teachers/supervisor’s instructions 1.3. Check and adjust machines and implements based on manufacturer’s lists and pre-operating procedure 1.4. Select and check suitable personal protective equipment (PPE) prior to use 1.5. Provide work support according to OHS requirements and workplace conditions 1.6. Identify OHS hazards and report to the authority based on OHS requirements and company reporting procedure	<b>TLE_AFRM9-12LP-Ia-f-1</b>
6.Cleaning and storage of machines and equipment 7.Application of 5S principle 8.Application of basic record keeping and management	The learner demonstrates an understanding of the principles and practices in farm machinery and equipment post-operation maintenance.	The learner independently operates tools, machineries and equipment and performs post-operation maintenance based on required task.	<b>LO 2. Perform post-operation activities</b> 2.1. Manage waste generated according to environmental regulations 2.2. Clean machines and engines following	<b>TLE_AFRM9-12LP-Ig-j-2</b>

**K to 12 BASIC EDUCATION CURRICULUM  
 JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK  
 AGRI-FISHERY ARTS – RICE MACHINERY OPERATIONS**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			2.3. established practice Prepare records of information on basic maintenance according to manufacturer's instructions and standard practice	
<b>QUARTER 2</b> <b>Lesson 1. Operate Rice Crop Establishment Machinery and Equipment (CE)</b> ( <i>Note: Research components should be included in all activities</i> )				
1.Common rice crop establishment work 2.Safe work practices 3.Proper use of rice crop establishment and equipment 4.Procedures for seed sowing/planting, transplanting 5.Environmental aspects of crop establishment work 6.Interpersonal relationships and communication (oral and written)	The learner demonstrates an understanding of the principles and practices in operating rice crop establishment machinery and equipment.	The learner independently operates rice crop establishment machinery and equipment based on required task.	<b>LO 1. Operate rice crop establishment machinery and equipment as directed</b> 1.1. Follow and clarify instructions and directions based on machinery requirements and workplace procedure 1.2. Assess field and seeds/seedlings for readiness in planting or transplanting 1.3. Undertake work in a safe and environmentally appropriate manner according to enterprise guidelines 1.4. Check and adjust tools, materials, and machines for operation in accordance with standard practice and work requirements 1.5. Observe workplace practices, handling and disposal of materials following enterprise policy and procedures. 1.6. Report to the authority the problems or difficulties in	<b>TLE_AFRM9-12CE-IIa-e-1</b>

**K to 12 BASIC EDUCATION CURRICULUM**  
**JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK**  
**AGRI-FISHERY ARTS – RICE MACHINERY OPERATIONS**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			completing work to required standards or timelines based on company reporting procedure	
7.Proper use/handling of materials and equipment 8.Storage principles and practices for materials, machinery and equipment 9.Waste materials management 10.Occupational health and safety procedures in routine maintenance of workplace	The learner demonstrates an understanding of the principles and practices in the proper handling of materials, tools, machineries and equipment.	The learner independently handles tools, machineries and equipment for rice crop establishment based on required task.	<b>LO 2. Handle materials, tools, machinery and equipment</b> 2.1. Store waste materials in a designated area according to workplace procedure/OHS procedure 2.2. Handle and transport materials, equipment and machinery according to enterprise guidelines 2.3. Maintain a clean and safe work site while working in accordance with OHS procedure	<b>TLE_AFRM9-12CE-IIf-h-2</b>
11.Procedures for storage of excess materials 12.Procedures for disposal of waste materials 13.Routine cleaning, maintenance and storage of tools and equipment 14.Report preparation of work outcomes	The learner demonstrates understanding of principles and practices the maintenance of various tools, machineries and equipment for rice crop establishment	The learner independently performs maintenance of various tools, machineries and equipment for rice crop establishment based on required task.	<b>LO 3. Clean up on completion of work</b> 3.1. Return materials to store or dispose of according to company standard procedures 3.2. Clean, maintain and store tools and equipment according to manufacturers' specifications 3.3. Report work outcomes to the authority following established reporting format	<b>TLE_AFRM9-12CE-III-j-3</b>

**Quarter 3 and 4**

**Lesson 1: Operate Crop Care Machinery and Equipment (CC)** ( Note: Research components should be included in all activities)

**K to 12 BASIC EDUCATION CURRICULUM**  
**JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK**  
**AGRI-FISHERY ARTS – RICE MACHINERY OPERATIONS**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
1.Types and selection of materials, tools, and equipment appropriate to crop care work 2.Routine check-up of tools and equipment 3.Manual handling procedures and techniques 4.Personal protective equipment and occupational health and safety requirements 5.Common OHS hazards and its control	The learner demonstrates an understanding of principles and practices in various crop care operations.	The learner independently operates machinery and equipment used for crop care work based on required task.	<b>LO 1. Prepare materials, tools and equipment for crop care work</b> 1.1. Identify required materials, tools and equipment according to lists provided and/or authority's instructions 1.2. Check materials, tools and equipment based on manufacturer's lists and pre-operating procedure 1.3. Report insufficient materials or faulty tools and equipment to authority 1.4. Select and check suitable personal protective equipment (PPE) prior to use 1.5. Provide crop care support according to OHS requirements and workplace information 1.6. Identify and report OHS hazards to authority based on OHS requirements and company reporting procedure	<b>TLE_AFRM9-12CC-IIIa-c-1</b>
6.Common crop care work 7.Safe work practices 8.Proper use of crop care tools and equipment 9.Hygiene in chemical handling and quality control 10.Machinery maintenance activities 11.Chemical, organic application	The learner demonstrates an understanding of the principles and practices of various crop care operations.	The learner independently operates machinery and equipment used for crop care work.	<b>LO 2. Operate crop care and machinery as directed</b> 2.1. Clarify and follow instructions and directions based on machinery requirements and workplace procedures 2.2. Check and install tools, accessories, equipment, and	<b>TLE_AFRM9-12CC-IIIId-j-2</b>

**K to 12 BASIC EDUCATION CURRICULUM**  
**JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK**  
**AGRI-FISHERY ARTS – RICE MACHINERY OPERATIONS**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
techniques 12.Environmental aspects of crop care 13.OHS legislative requirements and codes of practice 14.Interpersonal relationships and communication (oral and written)			machinery following manual and instructions 2.3. Undertake crop care work in a safe and appropriate environmentally manner according to crop care guidelines 2.4. Carry out interactions with other staff and customers in a positive and professional manner as specified in the employee manual 2.5. Observe workplace hygiene practice when handling and disposing of materials following GAP policy, procedures and OHS requirements 2.6. Report to authority the problems or difficulties in completing work to required standards or timelines following company reporting procedure	
15.Basic stock control procedures 16.Recycling/composting practices and procedures 17.Proper stockpiling of surplus materials 18.Storage principles and practices for materials 19.Waste materials management 20.Routine maintenance of workplace	The learner demonstrates an understanding of the principles and practices of various handling and storage of crop care materials, tools and equipment.	The learner independently segregates, store materials, tools and equipment used for crop care work.	<b>LO 3. Store and stockpile materials</b> 3.1. Store hazardous and waste material produced during crop care activities according to OHS procedure 3.2. Prepare and process hazardous waste materials in an appropriate and safe manner according to accepted recycling/composting practices and procedures	<b>TLE_AFRM9-12CC-IVa-e-3</b>

**K to 12 BASIC EDUCATION CURRICULUM  
 JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK  
 AGRI-FISHERY ARTS – RICE MACHINERY OPERATIONS**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			3.3. Stockpile for removal all surplus materials according to company guidelines 3.4. Maintain a clean and safe work site while completing crop care activities following routine maintenance procedures	
21.OHS Requirements 22.Procedure for storage of hazardous materials 23.Routine cleaning, maintenance and storage of tools and equipment 24.Report preparation of work outcomes	The learner demonstrates an understanding of the principles and practices in the handling and storage of hazardous crop care materials.	The learner independently segregates and stores hazardous materials used for crop care work.	<b>LO 4. Clean up on completion of crop care work</b> 4.1. Store hazardous materials according to company storage guidelines and OHS requirements 4.2. Clean, maintain and store tools and equipment according to manufacturers' specifications 4.3. Report the work outcomes to the supervisor following established reporting format	<b>TLE_AFRM9-12CC-IVf-j-4</b>

**K to 12 BASIC EDUCATION CURRICULUM**  
**JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK**  
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(160 hours)

**Course Description:**

This course is designed to enhance the knowledge, skills and attitudes of a high school student for **Rice Machinery Operations**. The core competencies are as follows: (1) preparation of rice land machinery and equipment, (2) operation of rice crop establishment machinery and equipment (3) operation of rice crop care machinery and equipment, (4) operation of rice harvesting and threshing machinery and equipment, (5) operation of rice drying machinery and equipment, and (6) operation of rice mill machinery and equipment.

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<b>Introduction</b> 1.Support rice production work 2.Support rice mechanization 3.Career opportunities	The learner demonstrates an understanding of the principles and practices of rice machinery operations.	The learner independently demonstrates common competencies in rice machinery operations as prescribed by TESDA Training Regulations.	1. Explain the methods and practices in operating rice harvesting and threshing machinery and equipment 2. Explain the methods and practices in operating rice drying machinery and equipment 3. Explain the methods and practices in operating rice milling machinery and equipment 4. Explore job opportunities in rice machinery operations	
<b>QUARTER 1 and 2</b> <b>Lesson 1: Operate Rice Harvesting and Threshing Machinery and Equipment (HT)</b> ( <i>Note: Research components should be included in all activities</i> )				
1. Types and selection of materials, tools, and equipment appropriate to rice harvesting and threshing 2. Routine check-up of tools and equipment 3. Manual handling procedures and techniques 4. Personal protective equipment and occupational health and safety requirements 5. Common OHS hazards and its control	The learner demonstrates an understanding of the principles and practices in operating machinery, tools and equipment for rice harvesting and threshing.	The learner independently operates tools and equipment for rice harvesting and threshing.	<b>LO 1. Prepare materials, tools and equipment for rice harvesting and threshing work</b> 1.1. Identify the required materials, tools and equipment according to lists provided and/or authority instructions. 1.2. Check materials, tools and equipment for insufficiency or faults/defects based on manufacturer’s lists and pre-operating procedures 1.3. Demonstrate the correct manual handling and techniques when loading and unloading materials to minimize damage to the load	<b>TLE_AFRM9-12HT-Ia-d-1</b>

**K to 12 BASIC EDUCATION CURRICULUM  
 JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK  
 AGRI-FISHERY ARTS – RICE MACHINERY OPERATIONS**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
6. Common GAP practices			and machinery following farm handling procedures 1.4. Select and check suitable personal protective equipment (PPE) prior to use according to job requirement 1.5. Provide cropping support according to OHS requirements and according to workplace information 1.6. Identify OHS hazards and report to the teacher/supervisor based on OHS requirements and company reporting procedures	
7. Common harvesting and threshing work 8. Safe work practices in harvesting and threshing operation 9. Proper use of farm tools, machines and equipment 10. Best practices procedures for harvesting, threshing, gathering, piling and field transport 11. Environmental aspects of harvesting and threshing work 12. Interpersonal relationships and communication (oral and written)	The learner demonstrates an understanding of the principles and practices in rice harvesting and threshing.	The learner operates farm tools and equipment for rice harvesting and threshing.	<b>LO 2. Undertake harvesting and threshing work as directed</b> 2.1. Follow and clarify instructions and directions based on supervisor’s requirements and workplace procedures 2.2. Machines are checked / adjusted based on operator’s manual and procedures 2.3. Undertake harvesting and threshing work in a safe and environmentally appropriate manner according to enterprise guidelines 2.4. Interact with other staff and customers in a positive and professional manner as specified in the employee manual 2.5. Observe workplace practices when handling and disposing of materials following enterprise policy and procedures 2.6. Report problems or difficulties in	<b>TLE_AFRM9-12HT-Ie-IIb-2</b>

**K to 12 BASIC EDUCATION CURRICULUM**  
**JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK**  
**AGRI-FISHERY ARTS – RICE MACHINERY OPERATIONS**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			completing work to required standards or timelines based on company reporting procedure	
13. Proper use/handling of materials and equipment 14. Storage practices for materials and equipment 15. Waste materials management 16. Routine maintenance of sheds and other workplaces 17. Repair and maintenance of structures 18. Occupational health and safety procedures	The learner demonstrates an understanding of the principles and practices in handling materials, tools, equipment and machinery for harvesting and threshing.	The learner independently handles, segregates, and disposes farm waste and debris produced in rice harvesting and threshing.	<b>LO 3. Handle materials and equipment</b> 3.1. Handle waste material and debris produced during harvesting and threshing work in a designated area according to workplace procedure/OHS procedure 3.2. Handle and transport materials, equipment and machinery according to enterprise guidelines 3.3. Maintain a clean and safe work site in accordance with OHS procedures	<b>TLE_AFRM9-12HT-IIc-f-3</b>
19. Procedure for storage of excess materials 20. Procedure for disposal of waste materials 21. Routine cleaning, maintenance and storage of tools, machinery and equipment 22. Report preparation of work outcomes	The learner demonstrates an understanding of the principles and practices in the cleaning and maintenance of harvesting and threshing equipment and machinery.	The learner cleans, maintains, and stows farm tools and equipment for rice harvesting and threshing.	<b>LO 4. Clean up on completion of harvesting and threshing work</b> 4.1. Return, store or dispose of materials according to company standard procedure 4.2. Clean, maintain and store tools and equipment according to manufacturers' specifications 4.3. Report work outcomes to authority following established reporting format	<b>TLE_AFRM9-12HT-IIg-j-4</b>
<b>Quarter 3</b>				
<b>Lesson 1. Operate Rice Drying Machinery and Equipment (RD)</b> ( <i>Note: Research components should be included in all activities</i> )				
1. Types and selection of materials, tools, machinery and equipment 2. Routine check-up of	The learner demonstrates an understanding of the principles and practices in operating tools, equipment, and machinery for rice drying.	The learner independently operates tools, equipment, and machinery in rice drying.	<b>LO 1. Prepare materials, tools and equipment for rice drying work</b> 1.1. Identify required materials, tools and equipment according	<b>TLE_AFRM9-12RD-IIIa-b-1</b>

**K to 12 BASIC EDUCATION CURRICULUM**  
**JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK**  
**AGRI-FISHERY ARTS – RICE MACHINERY OPERATIONS**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
tools, machinery and equipment 3. Different rice drying system systems and components 4. Personal protective equipment (PPE) and occupational health and safety (OHS) requirements 5. OHS hazards/ general OHS principles and legislation 6. Accident/hazard reporting procedure			to lists provided and/or authority's instructions 1.2. Check materials, tools and equipment for insufficiency or faults/defects based on manufacturer's lists and pre-operating procedures 1.3. Demonstrate correct manual handling and techniques when loading and unloading materials to minimize damage to the load and the machinery 1.4. Follow material and equipment handling procedures 1.5. Select and check suitable PPE prior to use 1.6. Provide rice drying support according to OHS requirements and workplace information 1.7. Identify and report to the supervisor the OHS hazards based on OHS requirements and company reporting procedure	
7. Safe work practices 8. Basic rice drying principles and practices 9. Basic dryer configuration 10. Drying tools and equipment 11. Environmental aspects of rice drying 12. Repair and maintenance of rice dryer components and systems	The learner demonstrates an understanding of the principles and practices in rice drying.	The learner operates farm tools, equipment and machinery for rice drying.	<b>LO 2. Undertake rice drying activity as directed</b> 2.1. Follow and clarify instructions and directions based on authority's requirements and workplace procedures 2.2. Undertake rice drying in a safe and environmentally appropriate manner according to enterprise guidelines 2.3. Interact with other staff and customers in a positive and professional manner as	<b>TLE_AFRM9-12RD-IIIc-f-2</b>

**K to 12 BASIC EDUCATION CURRICULUM**  
**JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK**  
**AGRI-FISHERY ARTS – RICE MACHINERY OPERATIONS**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
13. Interpersonal relationships and communication (oral and written)			<p>specified in the employee manual</p> <p>2.4. Handle and dispose of materials for rice drying following engineering and enterprise policy and procedures</p> <p>2.5. Report problems or difficulties in completing work to required standards or timelines to authority based on company reporting procedure</p>	
<p>14. Proper use/handling of materials and equipment</p> <p>15. Storage principles and practices for materials and equipment</p> <p>16. Waste materials storage and disposition</p> <p>17. Routine maintenance of rice drying systems and components</p> <p>18. Repair, maintenance, and storage of materials, tools and equipment</p>	The learner demonstrates understanding of the principles and practices in the handling of materials, tools, equipment and machinery used in rice drying.	The learner handles, segregates, and disposes of farm waste and debris produced in rice drying.	<p><b>LO 3. Handle materials and equipment</b></p> <p>3.1. Store waste material and debris produced during rice drying in a designated area according to workplace procedure/OHS procedure</p> <p>3.2. Handle and transport materials, equipment and machinery according to enterprise guidelines</p> <p>3.3. Maintain a clean and safe work site while undertaking rice drying activities in accordance with OHS procedures</p>	<b>TLE_AFRM9-12RD-IIIg-h-3</b>
<p>19. Procedures for storage of excess materials</p> <p>20. Procedures for disposal of waste materials</p> <p>21. Routine cleaning, maintenance and storage of tools and equipment</p> <p>22. Environmental requirements relative to</p>	The learner demonstrates an understanding of the principles and practices in the cleaning, disposal, and maintenance of materials, tools, equipment and machinery for rice drying.	The learner cleans, maintains, stows farm tools and equipment in rice drying based on required task.	<p><b>LO 4. Clean up on completion of rice drying activities (3 hrs)</b></p> <p>4.1. Return, store or dispose of materials according to company standard procedure and supervisor's instructions</p> <p>4.2. Clean, maintain and store tools and equipment according to manufacturers' specifications and supervisors' instructions</p>	<b>TLE_AFRM9-12RD-IIIi-j-4</b>

**K to 12 BASIC EDUCATION CURRICULUM**  
**JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK**  
**AGRI-FISHERY ARTS – RICE MACHINERY OPERATIONS**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
rice drying 23. Report preparation of work outcomes 24. Accident/hazard reporting procedures			4.3. Make the site clean according to authorities' instructions and good environmental practice 4.4. Report work outcomes to the authority following established reporting format	
<b>Quarter 4</b>				
<b>Lesson 1. Operate Rice Milling Machinery and Equipment (RM)</b> ( <i>Note: Research components should be included in all activities</i> )				
1. Types and selection of materials, tools, machinery and equipment 2. Routine check-up of tools, machinery and equipment 3. Different rice milling systems and components 4. Personal protective equipment (PPE) and occupational health and safety requirements 5. OHS hazards/ general OH & S principles and legislation 6. Accident/hazard reporting procedures	The learner demonstrates an understanding of the principles and practices in operating tools, equipment and machinery for rice milling.	The learner independently operates equipment and machinery in rice milling.	<b>LO 1. Prepare materials, tools and equipment for rice milling activity</b> 1.1. Identify required materials, tools and equipment according to lists provided and/or authority's instructions 1.2. Check materials, tools and equipment for insufficiency or faults/defects based on manufacturer's lists and pre-operating procedures 1.3. Demonstrate correct manual handling and techniques when loading and unloading materials to minimize damage to the load and the machinery 1.4. Follow material and equipment handling procedures 1.5. Select and check suitable PPE prior to use according to job requirements 1.6. Provide rice milling support according to OHS requirements and workplace information 1.7. Identify and report to the supervisor the OHS hazards based on OHS requirements and company reporting	<b>TLE_AFRM9-12RM-IVa-b-1</b>

**K to 12 BASIC EDUCATION CURRICULUM  
 JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK  
 AGRI-FISHERY ARTS – RICE MACHINERY OPERATIONS**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
7. Safe work practices 8. Basic rice milling principles and practices 9. Basic rice mill configuration 10. Rice milling tools and equipment 11. Environmental aspects of rice milling 12. Repair and maintenance of rice mill components and systems 13. Interpersonal relationships and communication (oral and written)	The learner demonstrates understanding of principles and practices in operating tools, equipment and machinery for rice milling	The learner operates farm tools, equipment and machinery for rice drying based on required task.	procedures  <b>LO 2. Undertake rice milling activity as directed</b> 2.1. Follow and clarify instructions and directions based on authority's requirements and workplace procedures 2.2. Undertake rice milling in a safe and environmentally appropriate manner according to enterprise guidelines 2.3. Carry out in a positive and professional manner the interactions with other staff and customers as specified in the employee manual 2.4. Handle and dispose of materials for rice milling following engineering and enterprise policy and procedure 2.5. Report problems or difficulties in completing work to required standards or timelines to authority based on company reporting procedure	<b>TLE_AFRM9-12RM-IVc-f-2</b>
14. Proper use/handling of materials and equipment 15. Storage principles and practices for materials and equipment 16. Waste materials storage and disposition 17. Routine maintenance of rice milling systems and components 18. Repair, maintenance,	The learner demonstrates an understanding of the principles and practices in handling materials, tools, equipment and machinery for rice milling.	The learner handles, segregates, disposes of farm waste and debris produced in rice milling.	<b>LO 3. Handle materials and equipment</b> 3.1. Store waste material and debris produced during rice milling in a designated area according to workplace procedure/OHS procedure 3.2. Handle and transport materials, equipment and machinery according to enterprise guidelines 3.3. Maintain a clean and safe work	<b>TLE_AFRM9-12RM-IVg-h-3</b>

**K to 12 BASIC EDUCATION CURRICULUM  
 JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK  
 AGRI-FISHERY ARTS – RICE MACHINERY OPERATIONS**

<b>CONTENT</b>	<b>CONTENT STANDARD</b>	<b>PERFORMANCE STANDARD</b>	<b>LEARNING COMPETENCIES</b>	<b>CODE</b>
and storage of materials, tools and equipment			site while undertaking rice milling activities in accordance with OHS procedures	
19. Procedures for storage of excess materials 20. Procedures for disposal of waste materials 21. Routine cleaning, maintenance and storage of tools and equipment 22. Environmental requirements relative to rice milling 23. Report preparation of work outcomes 24. Accident/hazard reporting procedures	The learner demonstrates understanding of principles and practices in cleaning, disposal and stowage of tools, equipment and machinery for rice milling	The learner cleans, maintains, stows farm tools and equipment in rice milling based on required task.	<b>LO 4. Clean up on completion of rice milling activities</b> 4.1. Dispose the materials according to company standard procedures and supervisor’s instructions 4.2. Clean, maintain and store tools and equipment according to manufacturers’ specifications and supervisors’ instructions 4.3. Make the site clean according to authorities instructions and good environmental practices 4.4. Report the work outcomes to the authority following established reporting formats	<b>TLE_AFRM9-12RM-IVi-j-4</b>

**K to 12 BASIC EDUCATION CURRICULUM  
JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK  
AGRI-FISHERY ARTS – RICE MACHINERY OPERATIONS**

**GLOSSARY**

Best practices	Generally accepted strategies and approved procedures in doing things employed to result to a more production.
Composting	Mixture of decayed vegetables, organic matters, lime, etc. used for fertilizing land.
Crop care	Attention given to economic plants.
Enterprises	A commercial or business undertaking.
Environmentally appropriate	The right or correct machine or procedure which is believed to be not destructive to the environment.
Hygiene	Science of health
Planting	The setting of seeds or seed pieces in the soil.
PPE	Any gadget to protect the body or any part of it while working in rice mill.
Recycling	Processing something so that basic raw materials maybe used again
Rice crop establishment	The science of rice farming.
Rice-drying	Lowering of moisture content by means of artificial dryer or drying under the heat of the sun.
Rice milling	Removal of the outside covering of rice grains with the use of a rice milling machine.
Seedling	A young plant grown from a seed.
Serendipity walk	An activity used to discover delightful things by chance.
Sowing	The process of burying seeds in the soil to effect germination.
Stock control	A systematic recording of input and output as a means of check and balance.
Transplanting	The transfer and planting of seedlings from the seedbed/seedbox to the field or the garden.
Workplace Information	Notices and announcements regarding the condition and location of workplaces.
5S	A systematic means of keeping things in order.

**K to 12 BASIC EDUCATION CURRICULUM  
 JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK  
 AGRI-FISHERY ARTS – RICE MACHINERY OPERATIONS  
 AGRI – FISHERY ARTS – RICE MACHINERY OPERATIONS**

**CODE BOOK LEGEND**

**Sample: TLE\_AFRM9-12CE-IIa-b-1**

LEGEND		SAMPLE	
<b>First Entry</b>	Learning Area and Strand/ Subject or Specialization	Technology and Livelihood Education_Agri-Fishery Rice Machinery Operations	<b>TLE_AF RM 9-12</b>
	Grade Level	Grade 9/10/11/12	
<b>Uppercase Letter/s</b>	Domain/Content/ Component/ Topic	Operate Rice Crop Establishment Machinery and Equipment	<b>CE</b>
			-
<b>Roman Numeral</b> <i>*Zero if no specific quarter</i>	Quarter	Second Quarter	<b>II</b>
<b>Lowercase Letter/s</b> <i>*Put a hyphen (-) in between letters to indicate more than a specific week</i>	Week	Week one to two	<b>a-b</b>
			-
<b>Arabic Number</b>	Competency	Assess field and seeds/seedlings for readiness in planting or transplanting	<b>1</b>

DOMAIN/ COMPONENT	CODE
Personal Entrepreneurial Skills	PECS
Environment and Marketing	EM
Operate Rice Land Preparation Machinery and Equipment	LP
Operate Rice Crop Establishment Machinery and Equipment	CE
Operate Crop Care Machinery and Equipment	CC
Operate Rice Harvesting and Threshing Machinery and Equipment	HT
Operate Rice Drying Machinery and Equipment	RD
Operate Rice Milling Machinery and Equipment	RM

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 – RICE MACHINERY OPERATIONS**

**SAMPLE AGRICULTURE AND FISHERY ARTS CURRICULUM MAP**

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

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