

K to 12 BASIC EDUCATION CURRICULUM
JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL - TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK
AGRI-FISHERY ARTS – FISH WHARF OPERATION (NC I)
(160 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 – FISH WHARF OPERATION (NC I)
(160 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 – FISH WHARF OPERATION (NC I)
(160 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 – FISH WHARF OPERATION (NC I)
(160 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 – FISH WHARF OPERATION (NC I)
(160 hours)

Course Description:

This is a specialization course which leads to a **Fishport/Wharf** National Certificate I (NC I). It covers one core competency that a high school student ought to possess—namely, operating a fishport/wharf. The preliminaries of this specialization course include the following: (1) discussion on the relevance of the course, (2) explanation of key concepts relative to the course, and (3) exploration of career opportunities.

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
Introduction <ol style="list-style-type: none"> 1. Basic concepts in aquaculture 2. Relevance of the course 3. Career opportunities 	The learner demonstrates an understanding of the basic concepts and underlying theories in Fishport/Wharf operation.	The learner independently demonstrates common competencies in Fishport/Wharf operation as prescribed by TESDA Training Regulations.	<ol style="list-style-type: none"> 1. Explain basic concepts in aquaculture 2. Discuss the relevance of the course 3. Explore career opportunities in Fishport/Wharf operations or as a source of extra income 	
PERSONAL ENTREPRENEURIAL COMPETENCIES (PECS)				
<ol style="list-style-type: none"> 1. Assessment of learner’s Personal Competencies and Skills (PECs) vis-à-vis PeCS of a practicing entrepreneur/employee in a province. <ol style="list-style-type: none"> 1.1. Characteristics 1.2. Attributes 1.3. Lifestyle 1.4. Skills 1.5. Traits 2. Analysis of learner’s 3. Strengthening and further developing one’s PeCS 	The learner demonstrates understanding of one’s Personal Competencies and Skills (PECs) in Fishport/Wharf operations.	The learner independently creates a plan of action that strengthens/ further develops one’s PECs in Fishport/Wharf operations.	LO 1. Develop and strengthen personal competencies and skills (PECs) needed in aquaculture <ol style="list-style-type: none"> 1.1. Identify areas for improvement, development and growth 1.2. Align one’s PECs according to his/her business/career choice 1.3. Create a plan of action that ensures success of his/her business/career choice 	TLE_PEC9-12-00-1

K to 12 BASIC EDUCATION CURRICULUM
JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL - TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK
AGRI-FISHERY ARTS – FISH WHARF OPERATION (NC I)
(160 hours)

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
ENVIRONMENT AND MARKET (EM)				
<ol style="list-style-type: none"> 1. Product Development 2. Keyconcepts in developing a product 3. Finding Value 4. Innovation <ol style="list-style-type: none"> 4.1. Unique Selling 4.2. Proposition (USP) 	The learner demonstrates an understanding of <i>environment</i> and <i>market</i> in Fishport/Wharf operations in one’s province.	The learner independently creates a business vicinity map reflective of the potential Fishport/Wharf operation market within the province.	LO 1. Recognize and understand the market for Fishport/Wharf operations within the province	TLE_PECS9-12-00-1
LESSON 1. UNLOAD AND LOAD FISH AND FISH PRODUCTS (UL)				
<ol style="list-style-type: none"> 1. Tools, equipment and materials for fish unloading and loading 2. Personal safety 3. Personal hygiene and good grooming 4. Unloading equipment 5. Safe and efficient unloading fish catch 6. Appropriate characteristics of loading and unloading procedure 7. Packing and unpacking fish catch 	The learner demonstrates an understanding of the underlying concepts and principles in the operation of a fishport/wharf.	The learner independently performs proper operation of a fishport/wharf.	LO 1. Prepare for loading and unloading of fish and fish products. <ol style="list-style-type: none"> 1.1 Prepare tools, equipment and materials for fish loading and unloading in accordance with standard operating procedure 1.2 Wear personal protective equipment (PPE) according to the job requirement 1.3 Practice personal hygiene and good grooming in line with health and safety requirements 	TLE_AFFW9-12UL-Ia-e-1
<ol style="list-style-type: none"> 8. Loading, transporting piling and weighing by fish classification 9. Proper distribution of load within its capacity to ensure safe transport 10. Load safety requirement 			LO 2. Load and unload fish and fish products <ol style="list-style-type: none"> 2.1. Unloading fish catch in accordance with organization’s procedures 2.2. Conduct unloading activities in a safe and efficient manner taking 	TLE_AFFW9-12UL-If-j-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 – FISH WHARF OPERATION (NC I)
(160 hours)

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			LO 4. Implement housekeeping activities 4.1. Clean used equipment, work area and surroundings in accordance with health and safety regulations 4.2. Clean and store PPE in accordance with standard operating procedure	TLE_AFFW9-12UL-IIIf-j-4
LESSON 2. CLASSIFY FISH AND FISH PRODUCTS (CF)				
<ol style="list-style-type: none"> 1. Classification of equipment/tools and materials 2. Prepare conveyor for fish classification 3. Personal protective equipment (PPE) according to HACCP requirement 4. Fish classifications according to buyers' specifications 5. Remove and place fish damage in separate containers 6. Packing and classifying fish 7. Proper tray loading 8. Weighing and recording fish in tray loads 9. Appropriate segregation and piling of fish trays 10. Appropriate storage conditions of fish loads 	The learner demonstrates an understanding of underlying concepts and principles in classifying fish and fish products.	The learner independently performs proper classification of fish and fish products.	LO 1. Prepare for fish classification 1.1 Prepare equipment, tools and materials for classifying fish according to standard operation practice 1.2 Clean and prepare the classifying table or conveyor for fish classification in accordance with organization's procedure 1.3 Wear PPE according to HACCP requirement 1.4 Practice personal hygiene and good grooming in line with health and safety requirements	TLE_AFFW9-12CF-IIIa-d-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 – FISH WHARF OPERATION (NC I)
(160 hours)

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
11. Health and safety regulations on equipment and work area 12. Cleaning and storing PPE				
			LO 2. Classify fish and fish products 2.1. Classify fish following buyers' specifications 2.2. Remove damaged fish and place in separate containers following standard operating practice 2.3. Pack fish in trays by classification following buyers' specifications	TLE_AFFW9-12CF-IIIe-h-2
			LO 3. Weigh fish by classification 3.1. Check tray load to ensure that it is even and within safe carrying capacity 3.2. Weigh fish by tray load and record according to standard operating practice or organization's procedure	TLE_AFFW9-12CF-IIIi-3
			LO 4. Segregate, pile and secure fish loads 4.1. Segregate and pile fish trays by orders, following supervisor's instructions 4.2. Secure and protect fish loads using appropriate storage conditions and workplace safety requirements	TLE_AFFW9-12CF-IVa-e-4

K to 12 BASIC EDUCATION CURRICULUM
JUNIOR HIGH SCHOOL TECHNOLOGY AND LIVELIHOOD EDUCATION AND SENIOR HIGH SCHOOL - TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK
AGRI-FISHERY ARTS – FISH WHARF OPERATION (NC I)
(160 hours)

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			LO 5. Implement housekeeping activities 5.1. Clean used equipment, work area and surroundings in accordance with health and safety regulations 5.2. Clean and store PPE in accordance with standard operating procedures	TLE_AFFW9-12CF-IVf-i-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 – FISH WHARF OPERATION (NC I)
 (160 hours)

CODE BOOK LEGEND

Sample: TLE_AFFP9-12CF-IVe-i-5

LEGEND		SAMPLE		DOMAIN/ COMPONENT	CODE
First Entry	Learning Area and Strand/ Subject or Specialization	Technology and Livelihood Education_Agri-Fishery Fishport/Wharf Operation	TLE_AFFW9-12	Personal Entrepreneurial Competencies	PECS
	Grade Level	9/10/11/12		Environment and Market	EM
Uppercase Letter/s	Domain/Content/Component/ Topic	Classify Fish And Fish Products	CF	Unload And Load Fish And Fish Products	UL
				Classify Fish And Fish Products	CF
Roman Numeral <i>*Zero if no specific quarter</i>	Quarter	Quarter	IV		
Lowercase Letter/s <i>*Put a hyphen (-) in between letters to indicate more than a specific week</i>	Week	Week five to nine	e-i		
Arabic Number	Competency	Clean used equipment, work area and surroundings in accordance with health and safety regulations	5		

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 – FISH WHARF OPERATION (NC I)
 (160 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 – FISH WHARF OPERATION (NC I)
(160 hours)

Reference:

Technical Education and Skills Development Authority-Qualification Standards Office. *Training Regulations for Fish Wharf Operation NC I*. Taguig City, Philippines: TESDA, 2011.