





Republic of the Philippines  
**Department of Education**  
REGION X - NORTHERN MINDANAO  
DIVISION OF MALAYBALAY CITY

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**HARMONIZED STRANDS FOR EPP/TLE (Grade4-6)**

<b>Strand</b>	<b>Quarter</b>
Entrep/ Information and Communication Technology (ICT)	1 <sup>st</sup> Quarter
Agriculture	2 <sup>nd</sup> Quarter
Home Economics	3 <sup>rd</sup> Quarter
Industrial Arts	4 <sup>th</sup> Quarter



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Republic of the Philippines  
**Department of Education**

22 AUG 2019

DepEd ORDER  
No **021** s. 2019

**POLICY GUIDELINES ON THE K TO 12 BASIC EDUCATION PROGRAM**

TO: Undersecretaries  
Assistant Secretaries  
Bureau and Service Directors  
Regional Directors  
Schools Division Superintendents  
Public and Private Elementary and Secondary Schools  
All Others Concerned

1. The Department of Education (DepEd) issues the enclosed **Policy Guidelines on the K to 12 Basic Education Program** to provide context to and articulate its context, features and programs.
2. The Policy provides a comprehensive explanation of the K to 12 Basic Education Program and its components across all key stages. It also provides a clear framework for the monitoring and evaluation of the program.
3. The policy integrates many of the existing policies and guidelines on K to 12. It also provides a reference point for ongoing and/or future review of any of its components as may be directed by the Secretary.
4. This policy will remain in force and in effect unless sooner repealed, amended, or rescinded.
5. Immediate dissemination of this Order is directed.

  
**LEONOR MAGTOLIS BRIONES**  
Secretary

Encls.:

As stated

References:

DepEd Order No. 43, s. 2013; and DepEd Memorandum No. 99, s. 2013

To be indicated in the Perpetual Index  
under the following subjects:

ALTERNATIVE LEARNING SYSTEM  
CURRICULUM  
ELEMENTARY EDUCATION  
LEARNERS  
POLICY  
PROGRAMS  
SECONDARY EDUCATION

<b>ARTS AND DESIGN TRACK</b>		
<b>Subject</b>	<b>Description</b>	
		strand, specifically the dance strand, gives them practical and hands-on experience with choreography, working with a local artist, performing arts group, or arts organization, and culminates in a dance production.
	Music	The subject offers the exploratory study of local music genres and ICT applications in music while deepening the musical skills and understanding of learners, who are also given the opportunity to learn various methods of producing music.
	Theater	In this subject, learners will be guided through a dynamic professional development and given hands-on opportunities by either placing them with practicing artists or organizations with resident artists who can administer on-the-job mentoring and training; learners may also put up their own show under the guidance of a director or an experienced theater practitioner.
Work Immersion/ Research/ Career Advocacy/ Culminating Activity i.e. Exhibit for Arts Production/ Performing Arts Production	Exhibit for Arts Production (Literary Arts)	This subject is a culmination activity to showcase the acquired skills in creative writing through scriptwriting for a stage production.
	Exhibit for Arts Production (Media Arts and Visual Arts)	As a final culminating project, the subject prepares learners to exhibit creative outputs to showcase their learnings during their apprenticeship period, with emphasis on artistic, educational, cultural values, and work ethics.
	Performing Arts Production	This subject is a showcase of performing arts skills enhanced and developed through a program of apprenticeship.

50. The apprenticeship subject in the Arts and Design Track will be allocated 160 hours to maximize exposure to the chosen arts field. Meanwhile, the culminating activity serves as a way to showcase/exhibit the acquired/enhanced artistic skills. It can either be an exhibit for arts production or a performing arts production, depending on the student's specialization.

### **THE TECHNICAL-VOCATIONAL-LIVELIHOOD (TVL) TRACK**

51. The SHS program has a Technical-Vocational-Livelihood (TVL) Track, which has four strands: Agri-Fishery Arts, Home Economics (HE), Information and Communication Technology (ICT), and Industrial Arts. These are aligned with Technology and Livelihood Education (TLE) in Grades 7-10. Each TVL strand offers various specializations that may or may not have a National Certificate (NC) equivalent from TESDA. The time allocation per strand specialization is based on TESDA Training Regulations-Based Courses and is only indicative since the standard time allotment of 80 hours per semester per subject will still be applied. Therefore,

each strand specialization must be designed to fit into the 80-hour blocks of time.

52. Technology Livelihood Education and Technical-Vocational Livelihood Track Subjects may be taken between Grades 9–12. Schools may offer specializations from the four strands as long as the minimum number of hours for each specialization is met. Curriculum Maps may then be modified according to specializations offered by a school. Below is a list of all the Technology and Livelihood Education and the Technical-Vocational Livelihood Track Specializations, their prescribed number of hours, and their prerequisites and sample curriculum maps:

**TVL Track: Agricultural-Fishery Arts (AFA) Strand**

53. This TVL component consists of specializations equivalent to qualifications under agriculture and fishery sectors. Students with agri-fishery arts specializations will be able to demonstrate necessary skills/competencies and values on the cultivation of plants and animal production to harvest food and other products using available technologies on farming and on raising, harvesting, and capturing fish and other aquatic resources. Schools that offer these specializations must have adequate facilities for students' laboratory classes.

**Table 2.18: Specialized Subjects for TVL: Agricultural and Fisheries Arts (AFA) Strand**

	<b>Specialization</b>	<b>Number of Hours</b>	<b>Pre-requisite</b>
1	Agricultural Crops Production (NC I)	320	
2	Agricultural Crops Production (NC II) <i>updated based on TESDA Training Regulations published 28 December 2013</i>	640	
3	Agricultural Crops Production (NC III)	640	Agricultural Crops Production (NC II)
4	Animal Health Care Management (NC III)	320	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 28 December 2013</i>	320	
6	Animal Production (Large Ruminants) (NC II) <i>updated based on TESDA Training Regulations published 28 December 2013</i>	320	
7	Animal Production (Swine) (NC II) <i>updated based on TESDA Training Regulations published 28 December 2013</i>	320	
8	Aquaculture (NC II)	640	
9	Artificial Insemination (Large Ruminants) (NC II)	160	Animal Production (Large Ruminants) (NC II)

	<b>Specialization</b>	<b>Number of Hours</b>	<b>Pre-requisite</b>
			II)
10	Artificial Insemination (Swine) (NC II)	160	Animal Production (Swine) (NC II)
11	Fish Capture (NC II)	640	
12	Fishing Gear Repair and Maintenance (NC III)	320	
13	Fish-Products Packaging (NC II)	320	
14	Fish Wharf Operation (NC I)	160	
15	Food Processing (NC II)	640	
16	Horticulture (NC III)	640	Agricultural Crops Production (NC II)
17	Landscape Installation and Maintenance (NC II)	320	
18	Organic Agriculture (NC II)	320	
19	Pest Management (NC II)	320	
20	Rice Machinery Operations (NC II)	320	
21	Rubber Processing (NC II)	320	
22	Rubber Production (NC II)	320	
23	Slaughtering Operations (Hog/Swine/Pig) (NC II)	160	

Figure 2.1: Sample Curriculum Map for TVL Track: Agriculture and Fishery Arts (AFA) Strand

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>added based on TESDA Training Regulations published in December 2012</small>	2 sems
		*Agricultural Crops Production (NC III)	6 sems
		Landscape Installation and Maintenance (NC II)	4 sems
		Pest Management (NC II)	4 sems
		Animal Production (Swine) (NC II)*	4 sems
		Animal Production (Large Ruminants) (NC II)*	4 sems
		Animal Production (Poultry-Chicken) (NC II)*	4 sems
		Rubber Production (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
	Organic Agriculture (NC II)	4 sems	
	Rice Machinery Operation (NC II)	4 sems	
	*Artificial Insemination: Swine (NC II)	2 sems	
	*Slaughtering Operations (Hog/Swine/Pig) (NC II)	2 sems	
	*Artificial Insemination: Large Ruminants (NC II)	2 sems	
	Fish Wharf Operation	2 sems	
	*Animal Health Care Management NC III	4 sems	
	Rubber Processing (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.

**TVL Track: Home Economics (HE) Strand**

54. This TVL component consists of specializations equivalent to qualifications under garments, tourism, health, processed food and beverages, and social and other community development service sectors. Students with home economics specializations will be able to demonstrate the necessary skills, competencies, and values in taking care of oneself and one's family, and in providing efficient services to others and to the community.

**Table 2.19: Specialized Subjects for TVL Track: Home Economics (HE) Strand**

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



Figure 2.2: Sample Curriculum Map for TVL Track: Home Economics (HE) Strand

GRADE 7/8 (EXPLORATORY)		GRADES 9-12			
EXPLORATORY		Beauty/Nail Care (NC II) 2 sems	Wellness Massage (NC II) 2 sems	Hairdressing (NC II) 4 sems	
		*Hairdressing (NC III)			8 sems
		Barbering (NC II) 4 sems			
		Dressmaking (NC II) 4 sems	Tailoring (NC II) 4 sems		
		*Fashion Design (Apparel) (NC III)			8 sems
		*Caregiving (NC II)			8 sems
		Bartending (NC II) 4 sems	Bread and Pastry Production (NC II) 2 sems	Food and Beverage Services (NC II)* <small>*based on TESDA Training Regulations published December 26, 2013</small> 2 sems	
		Cookery (NC II) 4 sems		*Commercial Cooking (NC III) 4 sems	
		Front Office Services (NC II) 2 sems	Travel Services (NC II) 2 sems	Local Guiding Services (NC II) 2 sems	Tourism Promotion Services (NC II) 2 sems
		Housekeeping (NC II)* <small>*based on TESDA Training Regulations published December 26, 2013</small> 2 sems	Attractions and Theme Parks (NC II) 2 sems	Event Management Services (NC III) 4 sems	
		Handicraft (Non-NC) Needlecraft 2 sems	Handicraft (Non-NC) Fashion Accessories, Paper Craft 2 sems	Handicraft (Non-NC) Basketry, Macrame 2 sems	Handicraft (Non-NC) Woodcraft, Leathercraft 2 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 pre-requisites 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.

### TVL Track: Industrial Arts (IA) Strand

55. This TVL component consists of specializations equivalent to qualifications under automotive and land transport, construction, electronics, furniture and fixture, metal and engineering, and utilities sectors. Students with industrial arts specializations will be able to demonstrate the skills, competencies, and values in providing repair and maintenance services, installation, manual craftsmanship, and machine safety using available industrial and engineering technologies.

**Table 2.20: Specialized Subjects for TVL Track: Industrial Arts (IA) Strand**

	Specialization	Number of Hours	Prerequisite
1	Automotive Servicing (NC I) <i>updated based on TESDA Training Regulations published 28 December 2013</i>	640	
2	Automotive Servicing (NC II)	640	Automotive Servicing (NC I)
3	Carpentry (NC II)	640	
4	Carpentry (NC III)	320	Carpentry (NC II)
5	Construction Painting (NC II)	160	
6	Domestic Refrigeration and Air-conditioning (DOMRAC) Servicing (NC II)	640	
7	Driving (NC II)	160	
8	Electrical Installation and Maintenance (NC II)	640	
9	Electric Power Distribution Line Construction (NC II)	320	Electrical Installation and Maintenance (NC II)
10	Electronic Products Assembly and Servicing (NC II) <i>updated based on TESDA Training Regulations published 28 December 2013</i>	640	
11	Furniture Making (Finishing) (NC II)	640	
12	Instrumentation and Control Servicing (NC II)	320	Electronic Products Assembly and Servicing (EPAS) (NC II)
13	Gas Metal Arc Welding (GMAW) (NC II)	320	Shielded Metal Arc Welding (SMAW) (NC II)
14	Gas Tungsten Arc Welding (GTAW) (NC II)	320	Shielded Metal Arc Welding (GMAW) (NC II)
15	Machining (NC I)	640	
16	Machining (NC II)	640	Machining (NC I)
17	Masonry (NC II)	320	
18	Mechatronics Servicing (NC II)	320	Electronic Products Assembly and Servicing (EPAS) (NC II)
19	Motorcycle/Small Engine Servicing (NC II)	320	
20	Plumbing (NC I)	320	

	<b>Specialization</b>	<b>Number of Hours</b>	<b>Prerequisite</b>
21	Plumbing (NC II)	320	Plumbing (NC I)
22	Refrigeration and Air-Conditioning (Packaged Air-Conditioning Unit [PACU]/Commercial Refrigeration Equipment [CRE]) Servicing (NC III)	640	Domestic Refrigeration and Air-conditioning (DOMRAC) Servicing (NC II)
23	Shielded Metal Arc Welding (NC I)	320	
24	Shielded Metal Arc Welding (NC II)	320	Shielded Metal Arc Welding (NC I)
25	Tile Setting (NC II)	320	
26	Transmission Line Installation and Maintenance (NC II)	640	Electrical Installation and Maintenance (NC II)

Figure 2.3: Sample Curriculum Map for TVL Track: Industrial Arts (IA) Strand

GRADE 7/8 (EXPLORATORY)		GRADES 9-12	
		Automotive Servicing (NC II)* <small>updated based on TESDA Training Regulations plus the December</small>	
		*Automotive Servicing (NC II)	
		Motorcycle/Small Engine Servicing (NC II) 3 <small>SEMS</small>	Diving (NC II) 2 <small>SEMS</small>
		Electronic Products Assembly and Servicing (NC II)* <small>added based on TESDA Training Regulations plus the December 2010</small>	
		*Mechatronics Servicing (NC II) 4 <small>SEMS</small>	
		*Instrumentation Control and Servicing (NC II) 4 <small>SEMS</small>	
		Electrical Installation and Maintenance (NC II) 8 <small>SEMS</small>	
		*Electrical Power Line Distribution Line Construction (NC II) 4 <small>SEMS</small>	
		*Transmission Line Installation and Maintenance (NC II) 8 <small>SEMS</small>	
		Machining (NC II) 8 <small>SEMS</small>	
		*Machining (NC II) 8 <small>SEMS</small>	
		Plumbing (NC I) 4 <small>SEMS</small>	*Plumbing (NC II) 4 <small>SEMS</small>
		Domestic Refrigeration and Air-conditioning Servicing (NC II) 6 <small>SEMS</small>	
		*Refrigeration and Air-conditioning Servicing (PACU/CRE) (NC III) 8 <small>SEMS</small>	
		Shielded Metal Arc Welding (NC I) 4 <small>SEMS</small>	*Shielded Metal Arc Welding (NC II) 4 <small>SEMS</small>
			*Gas Metal Arc Welding (GMAW) (NC II) 4 <small>SEMS</small>
			*Gas Tungsten Arc Welding (GTAW) (NC II) 4 <small>SEMS</small>
		Carpentry (NC II) 8 <small>SEMS</small>	
		*Carpentry (NC III) 4 <small>SEMS</small>	Construction Painting (NC II) 2 <small>SEMS</small>
		Furniture Making (Finishing) (NC II) 8 <small>SEMS</small>	
		Masonry (NC II) 4 <small>SEMS</small>	Tile Setting (NC II) 4 <small>SEMS</small>

\* Please note that these subjects have prerequisites mentioned in the CA  
 + CC added based on new Training Regulations of TESDA  
 Other specializations with no prerequisite may be taken up during these semesters  
 Prerequisites of the subjects to the right should 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.

**TVL Track: Information and Communications Technology (ICT) Strand**

56. This TVL component consists of specializations equivalent to qualifications under the information and communication technologies sector. Students with ICT specializations will be able to demonstrate the skills, competencies, and values in effective application, use, and management of technology in the context of system designing and customer service.

**Table 2.21. Specialized Subjects for TVL Track: Information and Communications Technology (ICT) Strand**

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

Figure 2.4: Sample Curriculum Map for TVL Track: Information and Communications Technology (ICT) Strand

Grade 7/8 (EXPLORATORY)	GRADES 9-12			
<b>EXPLORATORY</b>	<b>Computer Systems Servicing (NC II)*</b> <small>updated based on TESDA Training Regulations released December 28, 2007</small>			8 sems
			<b>*Telecom OSP and Subscriber Line Installation (Copper Cable/POTS and DSL) (NC II)</b>	4 sems
			<b>*Telecom OSP Installation (Fiber Optic Cable) (NC II)</b>	2 sems
	<b>Illustration (NC II)</b>		<b>Technical Drafting (NC II)</b>	
	4 sems	<b>Contact Center Services (NC II)</b>		4 sems
	4 sems	<b>Animation (NC II)</b>		4 sems
	4 sems	<b>Medical Transcription (NC II)</b>		4 sems
	4 sems	<b>Computer Programming (Oracle Database) (NC III)*</b> <small>updated based on TESDA Training Regulations released December 28, 2013</small>		4 sems

\* Please note that these subjects have pre-requisites mentioned in the CG.

+ CG updated based on new Training Regulations of TESDA.

■ Pre-requisites of the subjects to the right should 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.**

**C. Work Immersion/Research/Career Advocacy/Culminating Activity**

57. Regardless of track or strand, each specialization has one 80-hour subject slot where learners may take up Work Immersion/Research/Career Advocacy or a Culminating Activity. These options serve as avenues to apply and showcase the skills they have learned during SHS. However, the subject to be offered will depend on the school's capability. In terms of Work Immersion in TVL, the schools may opt to utilize various delivery models. Table 2.22 A illustrates these delivery models. The examples referred to (Models B1, B2 and so on) can be found in DepEd Order No. 30, s. 2017.

**Table 2.22 A: Work Immersion Delivery Models**

<b>Models</b>	<b>Work Immersion Hours</b>	<b>Learner's Purpose and Needs</b>	<b>School</b>	<b>Options</b>
Model A	80 hours (This is the minimum requirement for Work Immersion.)	For learners who only need 80 hours of work immersion	Has partners that only accommodate 80 hours of Work Immersion	
Model B	240 hours (80 + 160 hours)	Optional for learners who: 1. decide to do more Work Immersion hours in the specialization of their choice; and 2. have more Work Immersion opportunities available.	Has several Work Immersion partners that can accommodate all its learners in the first and second semester of Grade 12	<p>1. Learners may start taking a 640-hour specialization in Grade 9 and finish at Grade 11. For Grade 12, s/he may take up another 160-hour specialization before or after the Work Immersion.</p> <p>Examples are shown in Models B1 and B2.</p> <p>2. Learners may start taking a 320-hour specialization at Grade 11. For Grade 12, s/he may take up another 160-hour specialization before or after the work immersion.</p> <p>Examples are shown in Models B1 and B3.</p> <p>3. Learners may also take up three 160-</p>