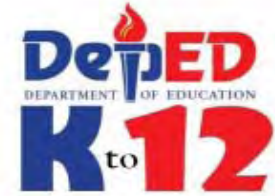




Republic of the Philippines
Department of Education
DepEd Complex, Meralco Avenue
Pasig City



COMPILATION

CURRICULUM GUIDES FOR TECHNOLOGY AND LIVELIHOOD EDUCATION (S.Y. 2014)

Technology and Livelihood Education (TLE)

1. Home Economics

- a. Beauty Care
- b. Caregiving
- c. Cookery
- d. Front Office Services
- e. Handicraft
- f. Household Services
- g. Dressmaking
- h. Travel Services
- i. Wellness Massage

(Included are: Bread and Pastry, Nail Care and Tailoring and Dressmaking)

2. Agri-Fishery Arts

- a. Agri-Crop Production
- b. Animal Production
- c. Aquaculture
- d. Horticulture
- e. Fish Processing

3. Industrial Arts

- a. Automotive Servicing
- b. Carpentry
- c. Consumer Electronics Servicing
- d. Electrical Installation and Maintenance
- e. Plumbing
- f. Refrigeration and Airconditioning
- g. Shielded Metal Arc Welding
- h. Masonry

(To include: Electronics, Mechanical Drawing and Tile Setting)

4. Information and Communications Technology (ICT)

- a. Computer Hardware Servicing
- b. Illustration
- c. Technical Drafting
- d. Contact Center Services



Home Economics

- Beauty Care
- Caregiving
- Cookery
- Front Office Services
- Handicraft
- Household Services
- Dressmaking
- Travel Services
- Wellness Massage

HOME ECONOMICS CURRICULUM MAP

No.	Grade 7/8	Grade 9	Grade 10	Grade 11	Grade 12
1	*Beauty/Nail Care (NC II)		Wellness Massage (NC II)	Hairdressing (NC II)	
2					
3					
4	*Caregiving	*Caregiving (COC)	Caregiving	**Caregiving (COC or NCII)	
5	*Dressmaking (NC II)			Tailoring (NC II)	
6					
7	*Front Office Services (NC II)		Travel Services (NC II)	Tour Guiding Services (NC II)	Tourism Production (NC II)
8					
9					
10					
11	*Cookery (NC II)			Bread and Pastry Production (NC II)	Food and Beverage Services (NC II)
12					
13					
14	*Household (NC II)			Housekeeping (NC II)	Attractions and Theme Parks (NC II)
15					
16					
17	Handicraft (Non-NC)	Handicraft (Non-NC) Needlecraft: embroidery, quilting, knitting, crochet	Handicraft (Non-NC) Fashion Accessories Paper Craft	Handicraft (Non-NC) Basketry Macrame	Handicraft (Non-NC) Woodcraft Leathercraft

* Students cannot take a specialization in Grades 9 and 10, if they have not taken 40 hours of the course in Grades 7 or 8.

** Students may only qualify for an NC II certification if they have taken Caregiving from Grades 7-12. If students only began taking Caregiving in Grade 11, should they finish, they will only qualify for a Certificate of Completion (COC).



Beauty Care

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
HOME ECONOMICS – BEAUTY CARE (NAIL CARE) SERVICES
Grade 7/8 (Exploratory)**

Course Description: This curriculum guide is an exploratory course in **Beauty Care (Nail Care) Services** which leads to National Certificate Level II (NC II). It covers four common competencies that a Grade 7/8 Technology and Livelihood Education (TLE) student ought to possess, namely: 1) use of tools and equipment; 2) interpreting nail design; 3) practicing Occupational Health and Safety Procedures (OHSP); and 4) maintain tools, equipment and paraphernalia. The preliminaries of this exploratory course include the following: 1) discussion on the relevance of the course; 2) explanation of the key concepts relative to the course and; 3) exploration on career opportunities.

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
Introduction 1. Basic concepts in Beauty Care (Nail Care) Services 2. Relevance of the course 3. Career opportunities	The learner demonstrates understanding of basic concepts and principles in Beauty Care (Nail Care) Services.	The learner independently demonstrates common competencies in Beauty Care (Nail Care) Services as prescribed in the TESDA Training Regulation.	1. Explain basic concepts in Beauty Care (Nail Care) Services 2. Discuss the relevance of the course 3. Explore on opportunities for Beauty Care (Nail Care) Services as a career	
PERSONAL ENTREPRENEURIAL COMPETENCIES - PECS				
1. Assessment of Personal Entrepreneurial Competencies and Skills (PECs) vis-à-vis a practicing entrepreneur 1.1 Characteristics 1.2 Attributes 1.3 Lifestyle 1.4 Skills 1.5 Traits 2. Analysis of PECs in relation to a practitioner	The learner demonstrates understanding of one's PECs.	The learner recognizes his/her PECs and compares with that of a practitioner/entrepreneur in Beauty Care (Nail Care) Services.	LO 1. Recognize PECs needed in Beauty Care (Nail Care) Services 1.1 Assess one's PECs: characteristics, attributes, lifestyle, skills, and traits 1.2 Compare one's PECs with that of a practitioner/entrepreneur	TLE_PECs7/8-00-1
ENVIRONMENT AND MARKET (EM)				
1. SWOT Analysis 1.1 Key concepts on environment & market 1.2 Differentiation of products, services, customers and their buying habits 1.3 Competitors in the market	The learner demonstrates understanding of the environment and market in Beauty Care (Nail Care) Services.	The learner independently creates a business idea based on the analysis of environment and market in Beauty Care (Nail Care) Services.	LO 1. Generate a business idea that relates with a career choice in Beauty Care (Nail Care) Services 1.1 Discuss SWOT analysis 1.2 Generate a business idea based on the SWOT analysis	TLE_EM7/8-00-1

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
LESSON 1:USE OF NAIL CARE TOOLS AND EQUIPMENT (UT)				
<ol style="list-style-type: none"> Nail Care tools and equipment Functions of Nail Care tools and equipment 	The learner demonstrates understanding of the use of tools and equipment in Nail Care Services.	The learner independently uses nail care tools and equipment in Nail Care Servicing.	LO 1. Prepare the necessary tools and equipment for the specific nail care activity 1.1 Classify the tools and equipment used in nail care 1.2 Identify the uses of tools and equipment in nail care according to task requirements 1.3 Use tools and equipment according to task requirement 1.4 Observe safety procedure of using tools and equipment	TLE_HEBC7/8UT-0a-b-1
LESSON 2: MAINTAIN TOOLS AND EQUIPMENT (MT)				
<ol style="list-style-type: none"> Procedure for sterilization and sanitation of Nail Care tools and equipment Classification of functional and non-functional tools and equipment 	The learner demonstrates understanding in maintaining tools and equipment in Nail Care Services.	The learner independently maintains tools and equipment in Nail Care Servicing.	LO 1. Check condition of nail care tools and equipment 1.1 Sterilize/sanitize nail care tools 1.2 Classify non-functional tools and equipment	TLE_HEBC7/8MT-0c-2
<ol style="list-style-type: none"> Cleaning agents Preventive maintenance technique and procedure 			LO 2. Perform basic preventive and corrective maintenance 2.1 Clean tools according to standard procedures 2.2 Inspected defective tools and equipment	TLE_HEBC7/8MT-0d-e-3
<ol style="list-style-type: none"> Inventory of tools and equipment Safekeeping of tools and equipment 			LO 3. Store nail care tools and equipment 3.1 Conduct the inventory of tools, and equipment 3.2 Store tools and equipment safely	TLE_HEBC7/8MT-0f-h-4
LESSON 3: PRACTICE OCCUPATIONAL HEALTH AND SAFETY PROCEDURES (OS)				
<ol style="list-style-type: none"> Protective outfit for Nail Care OHS workplace regulations Hazards and risks in beauty salons Common workplace hazards and preventive measures 	The learner demonstrates understanding in practicing occupational health and safety procedure in Nail Care Services.	The learner consistently practices occupational health and safety procedure in Nail Care Servicing.	LO 1. Keep workplace clean 1.1 Identify protective outfit for nail care 1.2 Identify hazards and risks 1.3 Explain workplace hazards and risks 1.4 Observe preventive precaution in the workplace	TLE_HEBC7/8MT-0i-5

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
LESSON 4: PRACTICE NAIL SHAPE (PN)				
1. Structures of Nail 2. Procedures in shaping nails	The learner demonstrates understanding in nail shapes in Nail Care Services.	The learner independently practice nail shapes in Nail Care Services.	LO 1. Identify nail structure and shapes 1.1 Identify nail structure and shapes 1.2 Perform nail trimmings to varied shapes	TLE_HEBC7/8MT-0j-6

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
HOME ECONOMICS – BEAUTY CARE (NAIL CARE) SERVICES
Grade 9 (Specialization)**

Course Description:

Beauty Care, one of the specialization courses offered in TLE, leads to TESDA qualification standard for National Certificate Level II (NC II). This covers the development of the learner’s knowledge, skills and attitude required in performing: 1) hand spa; 2) foot spa and; 3) manicure and pedicure.

Prerequisite: Grade 7/8 Nail Care Services

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<p>Introduction</p> <ol style="list-style-type: none"> 1. Core concepts and principles of Beauty Care (Nail Care) Services 2. Relevant topics of the course 3. Employment opportunities 4. Business opportunities 5. Further studies 	The learner demonstrates understanding of concepts and principles in beauty care (nail care) services.	The learner independently performs beauty care (nail care) services.	<ol style="list-style-type: none"> 1. Explain the core concepts and principles of manicure and pedicure, hand spa, and foot spa 2. Discuss topics which relate to beauty care services as a course 3. Explore job/entrepreneurial opportunities for beauty care services 4. Choose related courses to pursue 	
CONCEPT REVIEW				
PERSONAL ENTREPRENEURIAL COMPETENCIES - PECs (PC)				
<ol style="list-style-type: none"> 1. Dimensions of Personal Entrepreneurial Competencies <ol style="list-style-type: none"> 1.1 Three Clusters of PECs (Achievement, Planning, Power Clusters) 1.2 Characteristics 2. Assessment of Personal Competencies and Skills (PECs) 	The learner comprehends Personal Entrepreneurial Competencies – its dimensions and characteristics.	The learner recommends specific strategies to improve ‘weak’ areas and sustain ‘strong’ areas of their PECs.	<p>LO 1. Assess Personal Entrepreneurial Competencies</p> <ol style="list-style-type: none"> 1.1 Explain dimensions/clusters of PECs and the different characteristic traits per cluster 1.2 Evaluate one’s PECs 	TLE_PECs9-10-1
BUSINESS ENVIRONMENT AND MARKET (EM)				
<ol style="list-style-type: none"> 1. Factors included in the Business Environment 2. Spotting and Identifying Business Opportunities 	The learner demonstrates understanding of the different factors that influence the business environment	<ol style="list-style-type: none"> 1. The learner analyzes how factor influence the business environment. 2. The learner relates experience in generating business ideas or identifying business 	<p>LO 2. Understand the business environment and business ideas</p> <ol style="list-style-type: none"> 2.1 Explain how different factors influence the business environment 2.2 Explain procedures for generating business ideas or identifying business opportunities 	TLE_EM9-10-2

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
		opportunities.	2.3 Generate business ideas and identify business opportunities	
QUARTER 1 LESSON 1: PERFORM HAND AND FOOT SPA (HS)				
<ol style="list-style-type: none"> 1. Nail structure and conditions 2. Nail diseases and disorders 3. Benefits of spa treatment 4. Types of spa treatment 5. Hand/foot spa machine, tools, supplies and equipment 6. Care of foot spa machine, tools, supplies and equipment 7. Steps in giving hand/foot spa treatment 8. Pre-hand spa treatment 9. Hand spa treatment 			LO1. Apply hand treatment 1.1 Check and analyze condition of clients hand 1.2 Wash client's hand with lukewarm water and soap, and towel-dry before and after scrubbing 1.3 Prepare and use necessary tools and supplies/materials according to OHSC requirements 1.4 Determine and test appropriate temperature for heat tolerance of client 1.5 Soak hands for 4 seconds for 3 consecutive times in wax and wrap with plastic gloves and mittens 1.6 Remove wax from hands according to manufacturer's instructions 1.7 Apply hand softening product and massage according to prescribed procedure 1.8 Advise client after service on maintenance program 1.9 Confirm and record client's desired service outcome	TLE_HEBC9HS-Ia-g-1
<ol style="list-style-type: none"> 10. Post hand spa activity <ol style="list-style-type: none"> 10.1 storing and sanitation techniques 10.2 service maintenance program 10.3 good housekeeping 11. Proper waste disposal 	The learner demonstrates understanding of concepts and principles in hand spa.	The learner independently performs hand spa.	LO2. Perform post hand activity 2.1 Dispose waste products including used wax according to OHSC and Department of Health requirements. 2.2 Sanitize and store tools and equipment. 2.3 Clean and sanitize work station for the next treatment activity	TLE_HEBC9HS-Ih-j-2

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
LESSON 2: PERFORM FOOT SPA (FS)				
<ol style="list-style-type: none"> 1. Foot spa procedures 2. Client safety and comfort <ol style="list-style-type: none"> 1.3 foot and nail analysis 1.4 client relation 2. Foot spa machine, tools, supplies and equipment 3. Basic foot massage techniques 4. Pre-foot spa treatment 5. Foot spa treatment 	The learner demonstrates understanding of concepts and principles in foot spa.	The learner independently performs foot spa.	LO1. Apply foot spa <ol style="list-style-type: none"> 1.1 Check and analyze condition of foot nails 1.2 Ensure client's safety and comfort prior to foot spa activity 1.3 Wash feet with warm water and soap before and after scrubbing 1.4 Towel dry feet and apply with appropriate lotion 1.5 Set foot spa machine to regulate heat and achieve required melting of wax 1.6 Prepare and use necessary tools and supplies/materials according to OHSC requirements 1.7 Determine and test appropriate temperature for heat tolerance of client 1.8 Soak foot for 4 seconds for 3 consecutive times in wax and wrap with plastic gloves and mittens 1.9 Remove wax from foot according to manufacturer's instructions 1.10 Apply foot softening product and massage according to prescribed procedure 1.11 Advise client after service on maintenance program 1.12 Confirm with client desired service outcome and to be recorded 	TLE_HEBC9FS-IIa-g-3
<ol style="list-style-type: none"> 6. Post foot spa activity <ol style="list-style-type: none"> 6.1 storing and sanitation techniques 6.2 service maintenance program 6.3 good housekeeping 			LO2. Perform post foot spa activity <ol style="list-style-type: none"> 2.1 Dispose waste products including used wax according to OHSC and Department of Health requirements. 2.2 Sanitize and store tools and 	TLE_HEBC9FS-IIh-j-4

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			equipment. 2.3 Close and sanitize work station for the next treatment activity.	
QUARTER 2 and 3				
LESSON 3: PERFORM MANICURE AND PEDICURE (PMP)				
<p>1. Procedures of basic manicure and pedicure services.</p> <p>1.1 Nail structure</p> <p>1.2 Nail diseases and disorders</p> <p>1.3 Nail shapes</p> <p>1.4 Safety precautions and sanitation procedures</p> <p>1.5 Procedure in cleaning nails</p> <p>2. Application of basic nail designs</p> <p>2.1 Safety precautions</p> <p>2.2 Applying different</p> <p style="padding-left: 20px;">2.2.1 creative nail designs</p> <p style="padding-left: 20px;">2.2.2 Plain</p> <p style="padding-left: 20px;">2.2.3 Half –moon</p> <p style="padding-left: 20px;">2.2.4 French Tip</p> <p style="padding-left: 20px;">2.2.5 Half-moon with tip</p> <p style="padding-left: 20px;">2.2.6 Elephant Tusk</p>	<p>The learner demonstrates understanding of concepts, principle and techniques in manicure and pedicure services.</p>	<p>The learner independently performs manicure and pedicure services.</p>	<p>LO1. Clean finger nails and toe nails</p> <p>1.1 Consult client on desired nail service activity and specific requirements and consultation record is agreed and signed</p> <p>1.2 Checked and analyzed clients’ hand nail structure and condition</p> <p>1.3 Client is provided with protective materials for hygiene purposes</p> <p>1.4 Recognize nail disorder for prepare nail repair</p> <p>1.5 Select and prepare appropriate sanitized tools and equipment, supplies and materials are according to salon procedures</p> <p>1.6 Disinfect, sanitize, clean and dry hands and feet</p> <p>1.7 Clean nails in accordance with the established or acceptable procedures</p> <p>1.8 Trim and file nails based on client’s desired shape.</p> <p>1.9 Massage fingers following prescribed movements</p> <p>1.10 Ensure client’s safety and comfort is during the entire process.</p> <p>1.11 Apply first-aid in case of accidental cuts and wounds</p>	<p>TLE_HEBC9PMP-III/IVa-r-5</p>
			<p>LO 2. Perform basic nail designs</p> <p>2.1 Select color of the nail polish according to customer’s requirements</p> <p>2.2 Apply base coat with long strokes starting with the little</p>	

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			finger 2.3 Select color of the nail polish as agreed according to customer's desire or requirements 2.4 Apply nail polish from the base to the edge of the nail using light sweeping stroked around the cuticle 2.5 Apply top or seal coat with long strokes in the same manner as the base coat 2.6 Check and analyze outcome according to the clients nail service requirements. 2.7 Remove excess polish around the cuticle and nail using appropriate tool 2.8 Clean working area according to salon's policies and procedures 2.9 Advise client on nail maintenance practices	
QUARTER 4 Lesson 3. CREATE FANCY NAIL DESIGNS				
1. Application of Fancy designs on finger nails and toenails 1.1 Types of Fancy nail designs Free- hand nail art <ul style="list-style-type: none"> • Use of nail art stickers • Use of nail art stamping • Use of nail accessories • Water marbling 2.1 Different nail designing tool 3.1 Procedure in fancy nail designs			LO 1. Perform different fancy designs on finger nails and toe nails 1.1 Prepare nails for cleaning 1.2 Apply nail products according to manufacturer's recommendation 1.3 Consult clients from time to time to ensure safety and comfort during the entire process 1.4 Apply fancy nail designs 1.5 Result are checked <ul style="list-style-type: none"> 1.5.1well-balanced 1.5.2smooth 1.5.3neat and free from excess product on cuticle and nail walls 1.6 Client is advised on after-nail-care service	TLE_HEBC9PMP-III/IVa-r-6

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			1.7 Advise client on nail maintenance practices 1.8 Dispose waste properly according to waste environment and safety regulations 1.9 Clean sanitize work station in accordance with OH&S requirements.	

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
HOME ECONOMICS – BEAUTY CARE (NAIL CARE) SERVICES**

GLOSSARY

Antiseptic	a substance, milder than a disinfectant that prevents the growth and development of micro-organisms.
Alcohol	an organic compound used as sanitizer.
Antiseptic Solution	an agent that reduces or prevents the multiplication of microorganism.
Apron	an outer protective garment that covers primarily the front of the body to protect clothes from dirt or stains.
Assorted Nail Polish	lacquer applied on fingernails and toenails to decorate and/or protect the nail plate.
Base Coat	a clear layer of polish applied to the nail plate before the application of colored polish to smoothen the nail surface and promote healthier nails.
Benzalconium Chloride	yellow-white powder prepared in an aqueous solution and used as surface disinfectant and topical antiseptic.
Bleaching Soap	a type of soap formulated to whiten the skin.
Bevel	a term in manicuring and pedicuring that means to shape the edge of something.
Cling Wrap	thin plastic film used for sealing the paraffin during a hand spa.
Cotton	a soft white downy fiber for dubbing or cleaning the nails and removing nail polish
Cuticle Oil	a mixture of fats and waxes containing lanolin and petroleum used to soften and lubricate the skin around the nails.
Cuticle Remover	a liquid used to soften nail cuticles and prepare them for cutting.
Callous Remover	a tool designed to strip off calluses and corns.
Contaminated wastes	materials which are infected or with some measure of decay
Cuticle	the nonliving epidermis that surrounds the edges of the fingernail or toenail
Cuticle Nail Pusher	a tool used to pushback and loosen the cuticles.
Cuticle Nipper	a tool used to cut the cuticles.
Cuticle Scissor	a tool used to cut the stubborn cuticles.

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

GLOSSARY

Disinfectant	an agent, such as heat, radiation, or a chemical, that destroys, neutralizes, or prevents the growth of disease-carrying microorganisms
Effleurage	a French word meaning "to skim" or "to touch lightly on", is a series of massage strokes used in Swedish massage to warm up the muscle
Foot Spa Machine	an electronic gadget used for soaking, bathing, and massaging the feet during foot spa.
First Aid Kit	a collation of supplies for use in giving first aid.
Foot Blush	a liquid spray that contains peppermint and alpha hydroxyl acids derived from fruits.
Foot Soak	an herbal blend to relax, energize, soothe and deodorize the feet.
Foot Scrub	a mixture of natural ingredients to keep feet soft, smooth and moisturized.
Finger or Manicure Bowl	a small bowl used for soaking the fingers to soften the cuticles.
Foot File	a tool made of metal or sandpaper with a rough file on one side to remove calluses and a fine file on the other to smoothen the feet.
Foot Spa	a beauty care service offered by salons to relax and moisturize the feet
Foot Spa Basin	a large rectangular container used for bathing and soaking the feet when giving a pedicure.
Foot Spa Tray with Handle	a large rectangular container used for bathing and soaking the feet when giving a pedicure.
Garbage Bags/Bins	plastic disposable bags or trash receptacles used to contain rubbish.
Hand Spa	a beauty care service using natural oils, vitamins and minerals, having curative effect to the body
Hand Spa Machine	an electronic gadget used to soothe pain from arthritis, and muscle spasms.
Hand Towel	an absorbent cloth for drying the hands.
Hygiene	the science concerned with maintaining good health and cleanliness.
Implements	articles or tools used in manicuring that are durable.
Infection	a condition caused by a germ or a pathogen.

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

GLOSSARY

Lotion	any of various cosmetic preparations that are applied to soften the skin.
Materials	are cosmetics and supplies that are consumed and should be replaced from time to time. They are also called consumables.
Manicure Tray	a flat container where all the necessary tools and implements are placed for use by the manicurist.
Manicure Nail Brush	a plastic brush with nylon bristles used to clean dirt and cosmetic residue from the nail surface and skin.
Manicurist's Stool	an adjustable upholstered seat fitted over a piece of metal or chrome.
Manicure Pillow	a hand cushion that helps a client to keep her hands steady and relaxed.
Manicure Table	a table especially designed for giving manicure.
Mixing Bowl	a small open-top, rounded cup-like container used for mixing the aromatic oils and other fluids for the hand or foot spa.
Moisten	make wet or damp.
Nail Polish Remover	an organic solvent used to dissolve polish on nails.
Nail Hardener	a liquid applied to the nails to form a protective barrier to prevent chipping, peeling, and splitting of nails.
Nail bed	the portion of the skin upon which the nail plate rests.
Nail Buffer	a tool used for smoothening and polishing the nails.
Nail Cutter/Clipper/Trimmer	a hand tool made of metal used to trim fingernails and toenails.
Nail File	an implement used to shape the free edges of the nail with the coarse side and bevel the nail with the finer side.
Orange Stick	a wooden implement with pointed and rounded ends to remove excess polish.
Paraffin	waxy white or colorless solid hydrocarbon mixture used to make candles, wax
Pedicure Nail Brush	a tool used to remove cosmetics and cleanse nails.
Pumice Stone	a type of volcanic rock that removes dry skin and calluses from the feet.

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

GLOSSARY

Polythene	a kind of plastic commonly used for manufacturing grocery bags, shampoo bottles, children’s toys, among others.
Personal Protective Equipment (PPE)	protective clothing designed to protect the wearer’s body from injury or chemicals or for job-related occupational safety and health purposes.
Pathogen	a microbe or microorganism such as a virus, bacterium, prion, or fungus that causes disease.
Quick Dry	a liquid brushed over colored fingernails for the nail polish to dry faster.
Radiation	a process in which energy is transmitted in the form of waves or particles that can be used to destroy micro-organisms.
Solvent	a substance used to thin out the nail polish when it has thickened.
Sterilization	any process that eliminates (removes) or kills all forms of microbial life.
Spa	a beauty care service where curative minerals are present for beautification
Sterilizer	an equipment in a salon used for sterilizing metal implements to kill microorganisms.
Trolleys	a wheeled cart that is pushed by hand and used for transporting manicuring and pedicuring tools and materials. Toe Nail Separator – is a soft material where toes are inserted to keep them apart to prevent a freshly painted toenail from staining another toe.
Top Coat	a clear nail polish applied to the nails after the colored polish to protect it from scratches and chips; it makes nails harder and keeps them looking shiny.
Timer	a device that can be preset to start or stop something at a given time.
Wet Sanitizer	a substance or preparation for killing germs.

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
HOME ECONOMICS – BEAUTY CARE (NAIL CARE) SERVICES
CODE BOOK LEGEND**

Sample: TLE_HEBC9FS-IIh-j-4

LEGEND		SAMPLE	
First Entry	Learning Area and Strand/ Subject or Specialization	Technology and Livelihood Education_Home Economics Beauty Care (Nail Care)	TLE_HE BC 9
	Grade Level	Grade 9	
Uppercase Letter/s	Domain/Content/ Component/ Topic	Perform Foot Spa	FS
			-
Roman Numeral <i>*Zero if no specific quarter</i>	Quarter	Second Quarter	II
Lowercase Letter/s <i>*Put a hyphen (-) in between letters to indicate more than a specific week</i>	Week	Week Nine to Ten	h-j
			-
Arabic Number	Competency	Perform post foot spa activity	4

DOMAIN/ COMPONENT	CODE
Personal Entrepreneurial Competencies	PECS
Environment and Market	EM
Use of Nail Care Tools and Equipment	UT
Maintain Tools and Equipment	MT
Practice Occupational Health and Safety Procedures	OS
Practice Nail Shape	PN
Perform Foot Spa	FS
Perform Manicure and Pedicure	PMP



Caregiving

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
HOME ECONOMICS – CAREGIVING (CG)
GRADE 7/8** (Exploratory)

Course Description:

This curriculum guide is an exploratory course in **Caregiving** which leads to National Certificate Level II (NC II). It covers four common competencies that a Grade 7/8 Technology and Livelihood Education (TLE) student ought to possess, namely: 1) use of tools, equipment; and paraphernalia 2) maintain tools, equipment and paraphernalia 3) perform mensuration and calculation; and 4) practicing Occupational Health and Safety Procedures (OHSP)

The preliminaries of this exploratory course include the following: 1) discussion on the relevance of the course; 2) explanation of key concepts relative to the course and; 3) exploration on career opportunities.

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
Introduction 1. Key concepts in caregiving 2. Relevance of the course 3. Career opportunities	The learner demonstrates understanding of key concepts and theories in caregiving.	The learner independently demonstrates common competencies in caregiving as prescribed in the TESDA Training Regulation.	1. Explain key concepts in caregiving 2. Discuss the relevance of the course 3. Explore on opportunities for caregiving as a career	
PERSONAL ENTREPRENEURIAL COMPETENCIES - PECs (PC)				
1. Assessment of Personal Entrepreneurial Competencies and Skills (PECs) vis-à-vis a practicing entrepreneur/employee 1.1 Characteristics 1.2 Traits 1.3 Lifestyle 1.4 Skills 2. Analysis of PECs in relation to a practitioner	The learner demonstrates understanding of one's PECs.	The learner recognizes his/her PECs and prepares an activity plan that aligns with that of a practitioner/entrepreneur in Caregiving.	LO 1. Recognize PECs needed in Caregiving. 1.1 Assess one's PECs: characteristics, attributes, lifestyle, skills, and traits 1.2 Compare one's PECS with that of a practitioner /entrepreneur	TLE_HEPECS7/8-00-1
ENVIRONMENT AND MARKET (EM)				
1. SWOT Analysis 1.1 Key concepts on environment & market 1.2 Differentiation of products, services, customers and their buying habits 1.3 Competitors in the market	The learner demonstrates understanding of the environment and market in Caregiving.	The learner independently creates a business idea based on the analysis of environment and market in Caregiving.	LO 1. Generate a business idea that relates with a career choice in Caregiving 1. Discuss SWOT analysis 2. Generate a business idea based on the SWOT analysis	TLE_HECGEM7/8-00-1

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
LESSON 1: USE TOOLS, EQUIPMENT, AND PARAPHERNALIA (UT)				
1. Types and functions of caregiving tools and equipment 2. Classification of caregiving tools, equipment, and paraphernalia	The learner demonstrates understanding on the use of tools, equipment and paraphernalia in caregiving.	The learner independently uses tools, equipment and paraphernalia in caregiving.	LO 1. Identify caregiving tools, equipment, and paraphernalia applicable to a specific job 1.1 Classify equipment, tools, and paraphernalia according to types, and functions 1.2 Determine equipment, tools and paraphernalia based on the specified task	TLE_HEUTCG7/8-0a-b-1
3. Proper usage of tools, equipment and paraphernalia			LO 2. Use caregiving tools, equipment, and paraphernalia 2.1 Use equipment, tools and paraphernalia based on the task requirement	TLE_HECGUT7/8-0c-d-2
LESSON 2: MAINTAIN TOOLS, EQUIPMENT AND PARAPHERNALIA (MT)				
1. Procedures in maintaining tools, equipment and paraphernalia 2. Care of tools, equipment and paraphernalia	The learner demonstrates understanding in maintaining tools, equipment and paraphernalia in caregiving.	The learner independently maintains tools, equipment and paraphernalia in caregiving.	LO 1. Perform aftercare activities for tools, equipment and paraphernalia 1.1 Clean tools, equipment and paraphernalia after use 1.2 Store tools, equipment and paraphernalia in the appropriate area 1.3 Check tools, equipment and paraphernalia regularly for orderliness/tidiness 1.4 Carry out routine maintenance as per Standard Operating Procedures (SOP)	TLE_HECGMT7/8-0e-f-3
LESSON 3: PERFORM MENSURATION AND CALCULATIONS (PM)				
1. Ratio and proportion 2. Fractions 3. Conversions 4. Oral, rectal and pediatric	The learner demonstrates understanding in performing calculations in caregiving	The learner independently performs calculations in caregiving	LO 1. Perform simple calculations 1.1 Perform computations involving ratio, proportion, fractions and conversion	TLE_HECGPM7/8-0g-4

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
dosages			1.2 Compute oral dosages 1.3 Determine rectal dosages 1.4 Calculate pediatric dosages	
LESSON 4: PRACTICE OCCUPATIONAL HEALTH AND SAFETY PROCEDURES (OS)				
1. Common hazards in nursing Homes or day care 1.1. Physical hazards 1.2. Chemical hazards 1.3. Biological hazards 1.4. Ergonomic hazards 1.5. Psychological hazards 2. Effects of hazards in the workplace	The learner demonstrates understanding on the practice of occupational health and safety procedures in caregiving.	The learner independently practices occupational health and safety procedures in caregiving.	LO 1. Identify hazards and risks 1.1 Identify hazards and risks 1.2 Determine hazard and risks indicators in the workplace 1.3 Determine the effects of hazards	TLE_HECGOS7/8-0h-5
3. Safety measures 4. Electrical safety 5. Control measures waste management			LO 2. Evaluate and control hazards and risks 2.1 Follow Occupational Health and Safety (OHS) procedures in dealing with and for controlling hazards and risks 2.2 Use Personal Protective Equipment (PPE) in accordance with OHS procedures and practices 2.3 Establish organizational protocol in providing appropriate assistance in workplace emergencies	TLE_HECGOS7/8-0i-j-6

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TECHNOLOGY AND LIVELIHOOD EDUCATION
HOME ECONOMICS – CAREGIVING (CG)
GRADE 9 (Specialization)**

Course Description:

This is a TLE Home Economics mini course, CAREGIVING, consists of common and core competencies that a Grade 9 learner must achieve namely: 1) to implement and monitor infection control policies and procedures, 2) effectively respond to difficult/challenging behavior, 3) apply basic first aid, 4) maintain high standard of patient services, 5) maintain healthy and safe environment, 6 clean living room dining room, bedroom, toilets, bathrooms and kitchen),and 7 wash and iron clothes, linen and fabric.

Prerequisite: Grade 7/8 Caregiving

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<p>Introduction</p> <ol style="list-style-type: none"> 1. Core concepts and principles in caregiving 2. Relevance of the course 3. Career opportunities 	The learner demonstrates understanding of core concepts and principles in caregiving.	The learner independently develops the skills in caregiving and demonstrates the core competencies in caregiving as prescribed in TESDA Training Regulation.	<ol style="list-style-type: none"> 1. Explain core concepts and principle in caregiving 2. Discuss the relevance of the course 3. Explain on opportunities for caregiving as a career 	
CONCEPT REVIEW				
PERSONAL ENTREPRENEURIAL COMPETENCIES - PECs (PC)				
<ol style="list-style-type: none"> 1. Dimensions of Personal Entrepreneurial Competencies <ol style="list-style-type: none"> a. Three Clusters of PECs (Achievement, Planning, Power Clusters) b. Characteristics 2. Assessment of Personal Competencies and Skills (PECs) 	The learner comprehends Personal Entrepreneurial Competencies – its dimensions and characteristics.	The learner recommends specific strategies to improve 'weak' areas and sustain 'strong' areas of their PECs.	<p>LO 1. Assess Personal Entrepreneurial Competencies</p> <ol style="list-style-type: none"> 1.1 Explain dimensions/clusters of PECs and the different characteristic traits per cluster 1.2 Evaluate one's PECs 	TLE_HEPECS9-Ik-1
BUSINESS ENVIRONMENT AND MARKET (EM)				
<ol style="list-style-type: none"> 1. Factors included in the Business Environment 2. Spotting and Identifying Business Opportunities 	The learner demonstrates understanding of the different factors that influence the business environment	<ol style="list-style-type: none"> 1. The learner analyzes how factor influence the business environment. 2. The learner relates experience in generating business ideas or identifying business opportunities. 	<p>LO 2. Understand the business environment and business ideas</p> <ol style="list-style-type: none"> 2.1 Explain how different factors influence the business environment 2.2 Explain procedures for generating business ideas or identifying business opportunities 2.3 Generate business ideas and identify business opportunities 	TLE_HECGEM9-Ik-2

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
QUARTER 1 LESSON 1: IMPLEMENT AND MONITOR INFECTION CONTROL POLICIES AND PROCEDURES (IC)				
<ol style="list-style-type: none"> 1. Definition of infection, infection control, policy, procedures, hazard and infection risk assessment 2. Infection control policies and procedures and its importance 3. Monitoring procedure in infection control 	<p>The learner demonstrates understanding in implementing and monitoring infection control policies and procedures.</p>	<p>The learner independently implements and monitors infection control policies and procedures.</p>	<p>LO 1. Provide information to the work group about the organization’s infection control policies and procedures</p> <ol style="list-style-type: none"> 1.1 Define infection, infection control, policy, procedures, hazard and infection risk assessment 1.2 Explain the importance of infection control policies and procedures 1.3 Give examples of infection control policies and procedures. 1.4 Show examples of infection control monitoring forms 1.5 Explain monitoring procedures in infection control. 	<p>TLE_HECGIC9-Ia-1</p>
<ol style="list-style-type: none"> 1. Industry codes of practice 2. Hazards and the outcomes of Infection risk assessment 3. Application of Infection control monitoring policies and procedures in workplace 			<p>LO 2. Integrate the organization’s infection control policies and procedures into work practices</p> <ol style="list-style-type: none"> 2.1 Explain industry code of practice 2.2 Identify hazards and outcomes of infection risk assessment 2.3 Identify infection control monitoring policies and procedures 2.4 Apply infection control monitoring policies and procedures at the workplace 	<p>TLE_HECGIC9-Ib-2</p>

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
4. Designated personnel for the infection control information 5. Aggregate infection control information 6. Case study on infection cases			LO 3. Monitor infection control performance and implement improvement into practice 3.1 Recognize designated infection control monitoring personnel 3.2 Describe proper record keeping of infection control risks and incidents 3.3 Use records/information reports to improve or indicate training needs 3.4 Conduct studies on infection cases	TLE_HECGIC9-Ic-3
LESSON 2: RESPOND EFFECTIVELY TO DIFFICULT/CHALLENGING BEHAVIOR (DB)				
1. How to identify difficult and challenging situation 2. Planned responses to difficult or challenging behaviors	The learner demonstrates understanding in responding to difficult or challenging behaviors.	The learner independently responds to difficult or challenging behaviors.	LO 1. Plan responses 1.1 Define difficult/challenging behaviors 1.2 Identify difficult or challenging behaviors using examples and case scenario	TLE_HECGDB9-Id-4
3. Strategies in dealing with challenging behaviors 4. Selection of strategies in dealing with challenging behaviors 5. List/example of institutional policies and procedures in dealing with difficult/challenging behaviors			LO 2. Apply responses 2.1 Assess capability to respond to difficult/challenging behavior 2.2 List strategies in dealing with difficult/challenging behavior 2.3 Give examples of institutional policies and procedures in dealing with difficult/challenging behaviors 2.4 Explain institutional policy and procedures in dealing with difficult or challenging behaviors	TLE_HECGDB9-Ie-5

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			2.5 Select appropriate strategy/strategies in dealing with difficult/challenging behaviors 2.6 Use effective communication when dealing with difficult/challenging behavior	
6. How to assess incidents 7. Debriefing mechanism for staff involved in incidents			LO 3. Report and review incidents 3.1 Relay incidents according to institutional policies and procedures 3.2 Assess incidents for suggestions to properly handle the difficult/challenging behavior incident 3.3 Select appropriate debriefing mechanisms for the staff involved after the incident 3.4 Write comprehensive documentation regarding the difficult/challenging behavior incident 3.5 Conduct research on difficult/challenging behavior	TLE_HECGDB9-If-6

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
Lesson 3: APPLY BASIC FIRST AID (BA)				
1. First Aid Management 2. Physical Hazards 3. Personal and Environmental Risks 4. Casualty's Condition 5. Equipment and Resources 6. Communication System 7. Vital Signs 8. First Aid Principles	The learner demonstrates understanding in applying basic first aid procedures.	The learner independently applies basic first aid procedures.	LO 1. Assess the situation 1.1 Define first aid, first aid management, physical hazard, risks and vital signs 1.2 Discuss first aid principles 1.3 Demonstrate vital signs taking 1.4 Identify physical hazards to self and casualty's health and safety 1.5 Control physical hazards following the Occupational Health and Safety Procedures 1.6 Take casualty's vital signs 1.7 Assess casualty's physical condition following workplace procedures	TLE_HECGBA9-Ig-7
8. Appropriate first aid for casualties 9. Application of first aid management to casualties 10. Monitoring and recording casualties condition			LO 2. Apply basic first aid techniques 2.1 Identify appropriate first aid management for the casualty 2.2 Keep the casualty calm and comfortable 2.3 Apply first aid management to the casualty 2.4 Monitor casualty's physical condition following first aid principles and workplace procedures 2.5 Document/record casualty's condition in reference to organizational procedures	TLE_HECGBA9-Ih-8
11. How to request medical assistance 12. Reporting complete information details of incident			LO 3. Communicate details of the incident 1.1 Request medical assistance using communication media 1.2 Relay accurate details of the	TLE_HECGBA9-Ii-j-9

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			casualty's condition to emergency services/relieving personnel 1.3 Report complete details/information of the incident	
LESSON 4: MAINTAIN HIGH STANDARD OF PATIENT SERVICES (MS)				
1. Definition and characteristics of the patient 2. Health care providers 3. Communication and modes of communication	The learner demonstrates understanding in maintaining high standard of patient services.	The learner independently maintains high standard of patient services.	LO 1. Communicate appropriately with patients 1.1 Define patient/s, communication, confidentiality, and privacy 1.2 Describe the characteristics of a patient/s 1.3 Identify the health care providers and their role in caring for the patient 1.4 Discuss different modes of communication 1.5 Identify effective communication strategies and techniques to achieve best patient service outcomes 1.6 Employ established organizational policy to address complaints of patients 1.7 Utilize an interpreter service as required 1.8 Resolve conflicts immediately by directly or by referral to the appropriate personnel for positive outcomes	TLE_HECGMS9-IIa-10

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<p>4. Establishing rapport and good interpersonal relationship with patient 5. Rights and responsibilities of patients</p>			<p>LO 2. Establish and maintain good interpersonal relationship with patients 2.1 Establish rapport and good interpersonal relationship with the patient to ensure best patient service outcome 2.2 Exhibit genuine courtesy to the patient, family and visitors at all times 2.3 Recognize patient rights and responsibilities at all times 2.4 Identify patients' concerns and needs 2.5 Monitor and evaluate effectiveness of interpersonal relationship with patient to ensure best patient service outcomes.</p>	TLE_HECGMS9-IIb-11
<p>6. Respect for differences</p>			<p>LO 3. Act in a respectful manner at all times 3.1 Observe and respect individual differences 3.2 Maintain confidentiality and privacy of patients at all times 3.3 Demonstrate courtesy and respect in all interactions with patients, visitors, family and other health care providers 3.4 Ask assistance in caring and managing patients with challenging behaviors in accordance with established procedures. 3.5 Cite case studies on providing patient services 3.6 Confidentiality and privacy of</p>	TLE_HECGMS9-IIc-12

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			<p>patients</p> <p>LO 4. Evaluate own work to maintain a high standard of patient service</p> <p>4.1 Set criteria to evaluate performance in order to maintain a high standard of patient service</p> <p>4.2 Perform self evaluation, gather patient’s feedback and supervisor’s assessment regularly to maintain/improve high standard of patient service</p> <p>4.3 Performance monitoring</p>	TLE_HECGMS9-IIId-13
<p>QUARTER 2 LESSON 1: MAINTAIN A HEALTHY AND SAFE ENVIRONMENT (SE)</p>				
<p>1. Maintain a clean and hygienic environment</p> <p>1.1 Cleaning and cleaning agents definition</p> <p>1.2 Tools and equipment needed</p> <p>1.3 Legal requirements and regulations regarding supervision</p> <p>1.4 Proper disposal of waste materials</p> <p>1.5 Safety storage of cleaning materials and equipments</p>	<p>The learner demonstrates understanding in maintaining healthy and safe environment.</p>	<p>The learner independently maintains healthy and safe environment.</p>	<p>LO 1. Maintain a clean and hygienic environment</p> <p>1.1 Define cleaning and cleaning agents</p> <p>1.2 Identify tools and equipments needed to maintain clean and hygienic environment</p> <p>1.3 Use appropriate cleaning agents, tools and equipment</p> <p>1.4 Follow infection control procedures</p> <p>1.5 Maintain ventilation, lighting and heating/cooling adequately</p> <p>1.6 Demonstrate ability to provide a clean environment for children</p> <p>1.7 Observed personal hygiene/health procedures</p> <p>1.8 Enumerate legal requirements and regulations regarding</p>	TLE_HECGSE9-IIe-f-14

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			supervision of clean and hygienic environment 1.9 Show proper disposal of waste materials 1.10 Provide recordings on maintaining cleanliness in workplace	
2. Organizational procedures implemented for safety 2.1 Area inspection for hazards 2.2 Considerations when dealing and caring for children 2.3 Kinds of contact to formulate observations in caring for children 2.4 Potential risk to consider in dealing with children 2.5 Rules to observe to make the children environment safe for play 2.6 Providing a safe environment and risk reduction strategies in taking care of children 2.7 Age appropriate tools, equipments, toys and games for children 2.8 Hazards in caring for children 2.9 Identifying emergency and fire exits 2.10 Risk reduction/strategies in caring for children			LO 2. Provide a safe environment 2.1 Demonstrate ability to provide a clean and safe environment for children 2.2 Implement environment protection policy 2.3 Explain rules for safe play 2.4 Implement rules for safe play 2.5 Identify potential risks and hazards in the environment 2.6 Explain to clients potential risk and hazard found in the environment 2.7 Discuss and practice with clients the emergencies and evacuation procedures. 2.8 Discuss organizational policies and procedures on safety 2.9 Implement environment protection policy 2.10 Conduct institutional lay-out safety check 2.11 Provide tools, equipment, toys and games appropriate to the age of the child 2.12 Check and maintain equipment to ensure safety 2.13 Implement strategies in	TLE_HECGSE9-IIg-h-15

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
3. Review legal requirements and regulations for safety 4. Rules for safe play 5. Maintaining direct contact with individuals/group 6. Identification of potential risks in the environment for prevention 7. Hazards and potential hazards in the environment 8. Emergencies and evacuation procedures are discussed and practiced with clients.			checking the area for hazards and find ways for risks reduction LO 3. Supervise the safety of clients 3.1 Review legal requirements and regulations for safety 3.2 Explain rules for safe play 3.3 Model and implement rules for safe play 3.4 Identify hazards and potential hazards in the environment 3.5 Discuss emergency and evacuation procedures 3.6 Practice emergency and evacuation procedures 3.7 Maintain direct contact with individuals/group	TLE_HECGSE9-Ii-j-16
QUARTER 3 LESSON 1: CLEAN LIVING ROOM, DINING ROOM, BEDROOMS, TOILETS, BATHROOMS AND KITCHEN (CL)				
1. Procedures and techniques in cleaning and polishing rooms (living room, bedroom, bathroom, and kitchen) following standard operating procedures 2. Procedures and techniques in cleaning floor types and surface textures according to safety procedures and manufacturer's specifications 3. Method of removing suitable dirt/stain according to safety procedures and manufacturer's specifications 4. Different areas where dirt and dust can easily accumulate 5. Proper storage of cleaning equipments			LO 1. Clean living room, bedroom, bathroom, and kitchen 1.1 Discuss the principles and procedures in cleaning living room, bedroom, bathroom, and kitchen 1.2 Demonstrate procedures in cleaning, removing dirt/stain in living room, bedroom, bathroom, and kitchen 1.3 Perform correctly the procedure in cleaning 1.4 Discuss procedures and techniques in cleaning floor types and surface textures	TLE_HECGCL9-IIIa-d-17
6. Cleaning bed mattresses according to standard operating procedures			LO 2. Make up beds and cots 2.1 Identify different materials	TLE_HECGCL9-IIIe-f-18

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
7. Proper handling of soiled linens and pillowcases according to standard operating procedures 8. Procedures in bed making			needed in bed making 2.2 Identify procedures in bed making 2.3 Demonstrate proper procedure of bed making including centering the linen and making miters	
9. Types/Uses/Functions of Cleaning Equipment, Supplies and Materials 10. Method of identifying and removing Stains, Mud, Dirt and Grease 11. Stain Removal Techniques 12. Procedures in Cleaning, Disinfecting and Sanitizing Rooms (Toilet and Bathroom) 13. Types and Characteristics of Floors 14. Safety Precaution in using chemicals and tools in cleaning			LO3. Clean toilet and bathroom 1.1 Identify cleaning equipments/supplies and materials 1.2 Enumerate use of face mask, gloves for safe protection 1.3 Demonstrate cleaning of ceilings and walls in accordance with standard operating procedures and techniques 1.4 Demonstrate wiping of window edges and sills in accordance with SOPs 1.5 Demonstrate scrubbing and disinfection of bath tub, lavatory and toilet bowls in accordance with SOPs and techniques 1.6 Demonstrate washing and cleaning of accessories in accordance with SOPs and techniques	TLE_HECGCL9-IIIg-j-19
QUARTER 4 LESSON 1- WASH AND IRON CLOTHES, LINEN AND FABRIC (CF)				
1. Principles in washing clothes 2. Standard procedures in washing clothes 3. Language Label (Fabric and Garments Labels) 4. Types and Characteristics of Clothes, Linen and Fabric			LO 1. Check and sort clothes, linens and fabric 1.1 Identify principles in washing clothes 1.2 Enumerate standard procedures in washing clothes	TLE_HECGCF9-Iva-b-20

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
5. Standard Procedures in Checking and Preparing Washing Machine			1.3 Identify different types and characteristics of linen 1.4 Read different language label (fabric and garment labels) 1.5 Demonstrates sort soiled clothes, linen and fabrics according to texture, color, size and defects 1.6 Apply proper care of fabric 1.7 Prioritize sorted items according to the cleaning process required and the urgency of the item	
6. Definition of terms 7. Kinds of stain 8. Kinds of solutions in removing specific type of stain 9. Safety Precaution in using stain removing agents and chemicals 10. Proper storage of stain removing agents and chemicals			LO 2. Remove stains 2.1 Define stain, and stain removing 2.2 Identify different types of solution to remove stain 2.3 Demonstrate proper ways to remove stains using appropriate chemicals or agents 2.4 Identify ways to store all stain removing agents and chemicals following safety procedures.	TLE_HECGCF9-IVc-d-21
11. Types of laundry method 12. Types and Uses of Washing Machines and Dryers 13. Hygiene, Health and Safety Issues of Specific Relevance to Laundry Operations 14. Maintenance of Laundry Area 15. Equipment needed in performing laundry			LO 3. Perform laundry 3.1 Identify different types of laundry methods 3.2 Identify types and uses of washing machines and dryers. 3.3 Select appropriate laundry method. 3.4 Demonstrate washing of clothes, linen and fabric according to the labeling codes and washing instructions 3.5 Use laundry equipment in accordance with manufacturer's instruction 3.6 Demonstrate proper stain, dirt and unpleasant odor removal	TLE_HECGCF9-IVg-h-22

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			<p>from clothing, linen and fabric based on procedures</p> <p>3.7 Demonstrate proper sun-drying/machine drying of washed clothes, linen and fabric as per instructions</p> <p>3.8 Identify ways to free dried clothes, linen and fabric from unpleasant odor and static cling</p> <p>3.9 Show proper cleaning of washing area in accordance with safety and health procedures</p> <p>3.10 Perform after care of equipment after use in accordance with manufacturer's instructions</p>	
<p>16. Types and Use of Hangers</p> <p>17. Folding Method and Techniques</p> <p>18. Procedures in storing equipment and materials</p>			<p>LO4. Dry clothes, linen and fabric</p> <p>4.1 Identify types and uses of hangers</p> <p>4.2 Demonstrate different folding methods and techniques</p> <p>4.3 Demonstrate proper removal of dried clothes, linen and fabric</p> <p>4.4 Perform actual folding using different methods and techniques</p>	<p>TLE_HECGCF9-IVi-j-23</p>
<p>19. Standard procedures for ironing clothes, linens and fabrics</p> <p>20. Basics of Pressing</p> <p>21. Types and Uses of Irons, Ironing Boards and Ironing Accessories</p> <p>21.1 Procedures in storing materials and paraphernalia</p> <p>21.2 Care of equipment, materials and paraphernalia</p>			<p>LO 5. Iron clothes, linens and fabrics</p> <p>5.1. Define ironing clothes</p> <p>5.2. Identify standard procedures for ironing clothes, linens, and fabrics</p> <p>5.3. Enumerate basics of pressing</p> <p>5.4. Identify types and uses of ironing boards, and ironing</p>	<p>TLE_HECGCF9-IVi-j-24</p>

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			accessories 5.5. Discuss safety precautions in ironing fabric 5.6. Performs ironing in accordance to the standard procedures 5.7. Demonstrate proper folding, placing in a hanger and storing in designated cabinets the ironed clothes, linens and fabrics as per instructions 5.8. Demonstrate proper storage of ironing equipment and materials in the appropriate area following safety procedures	

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TECHNOLOGY AND LIVELIHOOD EDUCATION
HOME ECONOMICS – CAREGIVING (CG)
GRADE 10 (Specialization)**

Course Description:

Prerequisite: Grade 9 Caregiving

This is a TLE Home Economics course, **CAREGIVING**, consists of core competencies that a learner must achieve. This course is designed to develop knowledge, skills and attitude to provide health care. The course covers food preparation (hot and cold meals) in relation to caregiving as prescribed in the TESDA Training Regulation.

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
Introduction 1. Core principle and concept in caregiving 2. Relevance of the course 3. Career opportunities	The learner demonstrates understanding of core concepts and principle in caregiving.	The learner independently develops the skills in food processing and demonstrates the core competencies in caregiving prescribed in TESDA Training Regulation.	1. Explain core and principle concepts in caregiving 2. Discuss the relevance of the course 3. Explain on opportunities for caregiving as a career 4. Enumerate general areas of FOS	
PERSONAL ENTREPRENEURIAL COMPETENCIES - PECs (PC)				
1. Assessment of Personal Competencies and Skills (PECs) vis-à-vis a practicing entrepreneur/employee in a 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. Application of PECs to the chosen business/career	The learner demonstrates understanding of one's PECs in Caregiving.	The learner independently creates a plan of action that strengthens/ further develops one's PECs in Caregiving.	LO 1. Develop and strengthen PECs needed in Caregiving 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_HECGPECS10-Ik-1
ENVIRONMENT AND MARKET (EM)				
1. Product Development 2. Key concepts of developing a product 3. Finding Value 4. Innovation 4.1. Unique Selling 4.2. Proposition (USP)	The learner demonstrates understanding of environment and market in Caregiving in one's town/municipality.	The learner independently creates a business vicinity map reflective of potential Caregiving market within the locality/town.	LO 1. Develop a product/ service in Caregiving 1.1 Identify what is of "Value" to the customer 1.2 Identify the customer to sell to 1.3 Explain what makes a product unique and competitive 1.4 Create ones mission, goal and objective in caregiving 1.5 Apply creativity and Innovative techniques to	TLE_HECGEM10-Ik-1

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			develop marketable product 1.6 Employ a Unique Selling Proposition (USP) to the product/service 1.7 Prepare a flyers to advertise a new product	
5. Selecting Business Idea 6. Key concepts of Selecting 6.1. Business Idea 6.2. Criteria 6.3. Techniques			LO 2. Select a business idea based on the criteria and techniques set 2.1 Enumerate various criteria and steps in selecting a business idea 2.2 Apply the criteria/steps in selecting a viable business idea 2.3 Determine a business idea based on the criteria/techniques set	TLE_HECGEM10-Ik-2
7. Branding			LO 3. Develop a brand for the product 3.1 Identify the benefits of having a good brand 3.2 Enumerate recognizable brands in the town/province 3.3 Enumerate the criteria for developing a brand 3.4 Generate a clear appealing product brand	TLE_HECGEM10-Ik-3
QUARTER 1				
LESSON 1: PREPARE COLD MEALS -APPETIZERS, SANDWICHES, SALAD AND DESSERTS- (CM)				
1. Variety of ingredients in preparing appetizers 1.1 Preparing D’oeuvres 1.2 Preparing Canape’s 1.3 Preparing Finger foods 2. Methods of preparing appetizers 3. Tools, equipment, utensils needed in	The learner demonstrates the understanding in preparing cold meals (appetizers, sandwiches, and dessert).	The learner independently prepares cold meals (appetizers, sandwiches, and dessert).	LO 1. Prepare a range of appetizers 1.1 Discuss principles and procedures in the preparing appetizers sandwiches, and dessert. 1.2 Identify ingredients according to the given recipe	TLE_HECGCM10-Ia-d-1

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
preparing appetizers 4. Food and Safety Hazard 5. Safe Food Handling 6. Standard serving portion 7. Presentation appetizers 8. Principles and techniques in storing appetizers 9. Safety and hygienic practices in storing appetizers			1.3 Prepare variety of appetizers based on appropriate techniques 1.4 Present appetizers attractively using suitable garnishes, condiments and service wares 1.5 Compute for selling price per order of appetizer and nutritive content of food 1.6 Store appetizers hygienically at the appropriate temperature	
10. Variety of ingredients in preparing sandwiches 11. Variety of ingredients in preparing sandwiches 12. Tools, equipment, utensils needed in preparing sandwiches 13. Varieties of hot and cold sandwiches 14. Prepare varieties of sandwiches 15. Methods of preparing sandwiches 16. Presentation of prepared sandwiches 17. Standard serving portion 18. Safety and hygienic practices in storing sandwiches 19. Food and Safety Hazard Safe Food Handling			LO 2. Prepare sandwiches 2.1 Identify ingredients according to the given recipe 2.2 Prepare variety of sandwiches based on appropriate techniques 2.3 Present sandwiches attractively using suitable garnishes, condiments and service wares 2.4 Compute for selling price of sandwiches 2.5 Store sandwiches hygienically at the appropriate temperature	TLE_HECGCM10-Ie-g-2
20. Variety of ingredients in preparing salads and desserts 21. Tools, equipment, utensils needed in preparing salads and desserts 22. Varieties salads and desserts 23. Prepare salads and desserts 24. Methods of preparing salads and desserts 25. Presentation of prepared salads and desserts 26. Standard serving portion 27. Safety and hygienic practices in storing			LO 3. Prepare salads and desserts 3.1 Identify ingredients according to the given recipe 3.2 Prepare variety of salads and desserts based on appropriate techniques 3.3 Present salads and desserts attractively using suitable garnishes, condiments and	TLE_HECGCM10-Ih-j-3

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
salads and desserts 28. Food and Safety Hazard Safe Food Handling			service wares 3.4 Compute for selling price of prepared salad and dessert and nutritive contents 3.5 Store salads and desserts hygienically at the appropriate temperature	
QUARTER 2				
LESSON 1: PREPARE HOT MEALS -EGG DISHES, PASTA GRAIN AND FARINACEOUS DISHES- (HP)				
1. Variety of ingredients in preparing egg dishes 2. Tools, equipment, utensils needed in preparing egg dishes 3. Varieties of egg dishes Prepare varieties of sandwiches 4. Methods of preparing egg dishes Presentation of prepared egg dishes 5. Standard serving portion 6. Safety and hygienic practices in storing egg dishes 7. Food and Safety Hazard Safe Food Handling	The learner demonstrates the understanding in preparing hot meals (egg dishes, pasta grain and farinaceous dishes).	The learner independently prepares hot meals (egg dishes, pasta grain and farinaceous dishes).	LO 1. Prepare egg dishes 1.1 Discuss principles and procedure in the preparing egg dishes 1.2 Identify ingredients according to the given recipe 1.3 Prepare variety of egg dishes based on appropriate techniques 1.4 Present egg dishes attractively using suitable garnishes, condiments and service wares compute for selling price of egg dishes and nutrient contents 1.5 Store egg dishes hygienically at the appropriate temperature	TLE_HECGHP10-IIa-e-4
8. Variety of ingredients in preparing pasta grain and farinaceous dishes 9. Tools, equipment, utensils needed in preparing pasta grain and farinaceous dishes 10. Varieties of pasta grain and farinaceous dishes 11. Prepare varieties of pasta grain and farinaceous dishes 12. Methods of preparing pasta grain and farinaceous dishes			LO 2. Prepare pasta grain and farinaceous dishes 2.1 Identify ingredients according to the given recipe 2.2 Prepare variety of pasta grain and farinaceous dishes based on appropriate techniques 2.3 Present pasta grain and farinaceous dishes attractively using suitable garnishes,	TLE_HECGHP10-IIf-j-5

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
13. Presentation of prepared pasta grain and farinaceous dishes 14. Standard serving portion 15. Safety and hygienic practices in storing pasta grain and farinaceous dishes 16. Food and Safety Hazard Safe Food Handling			condiments and service wares 2.4 Compute for selling price of pasta dishes and nutrient contents 2.5 Store pasta grain and farinaceous dishes hygienically at the proper temperature	
QUARTER 3				
LESSON 1: PREPARE HOT MEALS -SEAFOOD DISHES, SOUP, SAUCES, GARNISHES, POULTRY DISHES- (SS)				
1. Variety of ingredients in preparing seafood dishes 2. Tools, equipment, utensils needed in preparing seafood dishes 3. Varieties of seafood dishes 4. Prepare varieties of seafood dishes 5. Methods of preparing seafood dishes 6. Presentation of prepared seafood dishes 7. Standard serving portion 8. Safety and hygienic practices in storing seafood dishes 9. Food and Safety Hazard Safe Food Handling	The learner demonstrates the understanding in preparing hot meals (seafood dishes, soup, sauces, garnishes and poultry dishes).	The learner independently prepares hot meals (seafood dishes, soup, sauces, garnishes and poultry dishes).	LO 1. Prepare seafood dishes 1.1 Discuss principles and procedure in the preparing seafood dishes 1.2 Identify ingredients according to the given recipe 1.3 Prepare variety of seafood dishes based on appropriate techniques 1.4 Present seafood dishes attractively using suitable garnishes, condiments and service wares 1.5 compute for selling price of nutrient contents 1.6 Store seafood dishes hygienically at the proper temperature	TLE_HECGSS10-IIIa-d-6
10. Variety of ingredients in preparing soup, sauces and garnishes 11. Tools, equipment, utensils needed in preparing soup, sauces and garnishes 12. Varieties of soup, sauces and garnishes 13. Prepare varieties of soup, sauces and garnishes 14. Methods of preparing sandwiches 15. Presentation of prepared soup, sauces and garnishes			LO 2. Prepare soup, sauces and garnishes 2.1 Identify ingredients according to the given recipe 2.2 Prepare variety of soup, sauces and garnishes based on appropriate techniques 2.3 Present soup, sauces and garnishes attractively using suitable garnishes, condiments	TLE_HECGSS10-IIIe-g-7

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
16. Standard serving portion 17. Safety and hygienic practices in storing sandwiches 18. Food and Safety Hazard Safe Food Handling			and service wares 2.4 Compute for selling price for order and nutrient contents 2.5 Store soup, sauces and garnishes hygienically at the proper temperature	
19. Variety of ingredients in preparing poultry dishes 20. Tools, equipment, utensils needed in preparing poultry dishes Varieties of poultry dishes Prepare varieties of poultry dishes Methods of preparing poultry dishes Presentation of prepared poultry dishes Standard serving portion 21. Safety and hygienic practices in storing poultry dishes Food and Safety Hazard Safe Food Handling			LO 3. Prepare poultry dishes 3.6 Identify ingredients according to the given recipe 3.7 Prepare variety of poultry dishes based on appropriate techniques 3.8 Present poultry dishes attractively using suitable garnishes, condiments and service wares 3.9 Store poultry dishes hygienically at the proper temperature	TLE_HECGSS10-IIIh-j-8
QUARTER 4				
LESSON 1: PREPARE HOT MEALS -VEGETABLE DISHES AND MEAT DISHES- (VD)				
1. Variety of ingredients in preparing vegetable dishes 2. Tools, equipment, utensils needed in preparing vegetable dishes 3. Varieties of vegetable dishes 4. Prepare varieties of vegetable dishes 5. Methods of preparing vegetable dishes 6. Presentation of prepared vegetable dishes 7. Standard serving portion 8. Safety and hygienic practices in storing vegetable dishes 9. Food and Safety Hazard Safe Food Handling	The learner demonstrates the understanding in preparing hot meals (vegetable and meat dishes).	The learner independently prepares hot meals (vegetable and meat dishes).	LO 1. Prepare vegetable dishes 1.1 Discuss principles and procedures in the preparing vegetable dishes 1.2 Identify ingredients according to the given recipe 1.3 Prepare variety of vegetable dishes based on appropriate techniques 1.4 Present vegetable dishes attractively using suitable garnishes, condiments and service wares 1.5 Compute for selling price per order and nutrient content 1.6 Store vegetable dishes	TLE_HECGVD10-Iva-e-9

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			hygienically at the proper temperature	
10. Variety of ingredients in preparing meat dishes 11. Tools, equipment, utensils needed in preparing meat dishes 12. Varieties of hot and cold meat dishes Prepare varieties of meat dishes Methods of preparing meat dishes Presentation of prepared meat dishes 13. Standard serving portion 14. Safety and hygienic practices in storing meat dishes Food and Safety Hazard Safe Food Handling			LO 2. Prepare meat dishes 2.1 Identify ingredients according to the given recipe 2.2 Prepare variety of meat dishes based on appropriate techniques 2.3 Present meat dishes 2.4 attractively using suitable garnishes, condiments and service wares 2.5 Compute for selling price per order and nutritive content 2.6 Store meat dishes hygienically at the proper temperature	TLE_HECGVD10-IVf-j-10

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TECHNOLOGY AND LIVELIHOOD EDUCATION
Code Book Legend**

Sample: TLE_HECGVD10-IVf-j-10

LEGEND		SAMPLE	
First Entry	Learning Area and Strand/ Subject or Specialization	Technology and Livelihood Education_Home Economics Caregiving	TLE_HE CG 10
	Grade Level	Grade 10	
Uppercase Letter/s	Domain/Content/ Component/ Topic	Vegetable Dishes and Meat Dishes	VD
			-
Roman Numeral <i>*Zero if no specific quarter</i>	Quarter	Fourth Quarter	IV
Lowercase Letter/s <i>*Put a hyphen (-) in between letters to indicate more than a specific week</i>	Week	Weeks Six to Ten	f-j
			-
Arabic Number	Competency	Prepare meat dishes	10

**K to 12 BASIC EDUCATION CURRICULUM
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DOMAIN/ COMPONENT	CODE
Personal Entrepreneurial Competencies	PECS
Environment and Market	EM
Use Tools, Equipment and Paraphernalia	UT
Maintain Tools, Equipment and Paraphernalia	MT
Perform Mensuration and Calculation	PM
Practice Occupational and Safety Procedures	OS
Implement and Monitor Infection Control Policies and Procedures	IC
Respond Effectively To Difficult/Challenging Behavior	DB
Apply Basic First Aid	BA
Maintain High Standard of Patient Services	MS
Maintain a Healthy and Safe Environment	SE
Clean Living Room, Dining Room, Bedrooms, Toilets, Bathrooms and Kitchen	CL
Wash and Iron Clothes, Linen and Fabric	CF
Prepare Cold Meals -Appetizers, Sandwiches, Salad and Desserts	CM
Prepare Hot Meals -Egg Dishes, Pasta Grain and Farinaceous Dishes	HP
Prepare Hot Meals -Seafood Dishes, Soup, Sauces, Garnishes, Poultry Dishes	SS
Prepare Hot Meals -Vegetable Dishes and Meat Dishes	VD



Cookery

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
HOME ECONOMICS - COOKERY
Grade 7/8 (Exploratory)**

Course Description:

This curriculum guide is an exploratory course in **Cookery**, which leads to National Certificate Level II (NC II). It covers five common competencies that a Grade 7/8 Technology and Livelihood Education (TLE) student ought to possess, namely: 1) knowledge of the use of tools, equipment, and paraphernalia; 2) maintenance of tools, equipment, and paraphernalia; 3) performance of mensuration and calculation; 4) interpretation of technical drawings and plans; and 5) the practice of Occupational Health and Safety Procedures (OHSP) The preliminaries of this exploratory 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 1. Basic concepts in cookery 2. Relevance of the course 3. Career opportunities	The learners demonstrate an understanding of basic concepts and theories in cookery	The learners independently demonstrate common competencies in cookery as prescribed in the TESDA Training Regulation	<i>The learners:</i> 1. explain basic concepts in cookery 2. discuss the relevance of the course 3. explore opportunities for cookery as a career	
PERSONAL ENTREPRENEURIAL COMPETENCIES – PECs				
1. Assessment of Personal Entrepreneurial Competencies and Skills (PECs) vis-à-vis a practicing entrepreneur/employee: 1.1. Characteristics 1.2. Lifestyle 1.3. Skills 1.4. Traits 2. Analysis of PECs in relation to an entrepreneur	The learners demonstrate an understanding one's PECs	The learners recognize his/her PECs and prepare an activity plan that aligns that with that of a practitioner/entrepreneur in cookery	LO 1. Recognize PECs needed in cookery 1.1 assess one's pecs: characteristics, lifestyle, skills, traits 1.2 compare one's pecs with those of an entrepreneur	TLE_PECs7/8-00-1
ENVIRONMENT AND MARKET (EM)				
SWOT analysis 1. Key concepts in environment and market 2. Differentiation of products, services,	The learners demonstrate an understanding environment and market in cookery	The learners create a business idea based on the analysis of environment and market in cookery	LO 1. Generate a business idea that relates with a career choice in Cookery 1.1 discuss swot analysis 1.2 generate a business idea	TLE_EM7/8-00-1

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
customers and their buying habits 3. Competitors in the market			based on the swot analysis	
USE OF KITCHEN TOOLS, EQUIPMENT, AND PARAPHERNALIA (UT)				
1. Types of kitchen tools, equipment and paraphernalia 2. Uses of kitchen tools, equipment, and paraphernalia	The learners demonstrate an understanding the use and maintenance of equipment in cookery	The learners independently use and maintain tools, equipment, and materials in cookery according to standard operating procedures	LO 1. Utilize appropriate kitchen tools, equipment, and paraphernalia 1.1 identify types of tools, equipment, and paraphernalia 1.2 classify the types of appropriate cleaning tools and equipment based on their uses 1.3 describe the various types of kitchen tools, equipment, and paraphernalia	TLE_HECK7/8UT-0a-1
MAINTENANCE OF KITCHEN TOOLS, EQUIPMENT, AND PARAPHERNALIA (MT)				
1. Types of chemicals for cleaning and sanitizing kitchen tools and equipment 2. Steps in cleaning and sanitizing kitchen tools and equipment 3. Cleaning kitchen premises (floor and storage areas) 4. Maintenance of kitchen tools, equipment, and work areas			LO 2. Maintain appropriate kitchen tools, equipment, and paraphernalia 2.1 select various types of chemicals for cleaning and sanitizing kitchen tools, equipment, and paraphernalia 2.2 clean and sanitize kitchen tools and equipment following manufacturer's instructions 2.3 use cleaning tools, equipment, and paraphernalia in accordance to standard operating procedures 2.4 maintain kitchen tools, equipment, and work	TLE_HECK7/8MT-0b-2

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			areas	
1. Storing/stacking tools and equipment			LO 3. Store and stack kitchen tools and equipment 3.1 store or stack cleaned equipment and utensils safely in the designated place	TLE_HECK7/8MT-0c-3
PERFORM MENSURATION AND CALCULATIONS (PM)				
1. Types of measuring tools and their uses 2. Measuring techniques of ingredients 2.1. Dry ingredients 2.2. Liquid ingredients 3. Measurement abbreviations 4. Equivalent measurements 5. Conversion of weights and measurements 6. Substitution of ingredients	The learners demonstrate an understanding performing mensuration and calculation in cookery	The learners independently measure and calculate ingredients in cookery	LO 1. Carry out measurements and calculations in a required task 1.1 give the abbreviations and equivalents of measurements 1.2 identify the types of measuring tools 1.3 describe the functions of measuring tools 1.4 measure ingredients according to recipe requirement 1.5 convert systems of measurement according to recipe requirement 1.6 perform substitution of ingredients	TLE_HECK7/8PM-0d-4
7. Costing the finished products/recipes 7.1. Expenses 7.2. Mark-up 7.3. Selling price 7.4. Profit			LO 2. Calculate cost of production 2.1 discuss principles of costing 2.2 compute cost of production 2.3 validate computed cost of production	TLE_HECK7/8PM-0e-5
INTERPRET KITCHEN LAYOUT (KL)				
1. Alphabet of lines	The learners demonstrate an	The learners independently	LO 1. Read and interpret	TLE_HECK7/8KL-0f-6

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
2. Architectural kitchen symbols, diagram, and layout	understanding the interpretation of diagrams, plans, and kitchen layouts	interpret kitchen/shop layouts based on given blueprints	kitchen plans 1.1 read and interpret architectural kitchen symbols and layout according to specifications in the blueprint 1.2 determine parts and functions of a kitchen layout	
3. Kitchen types and layouts			LO 2. Prepare a kitchen layout 2.1 prepare a sketch and layout according the type of kitchen	TLE_HECK7/8KL-0g-7
PRACTICE OCCUPATIONAL HEALTH AND SAFETY PROCEDURES (OSHP)				
1. Concepts of the following: 1.1. Safety 1.2. Health 1.3. OHSP standards 2. Safety Regulations 2.1. Clean Air Act 2.2. Building Code 2.3. National Electrical and Fire Safety Code 2.4. Ph OSHS	The learners demonstrate an understanding the practice of occupational health and safety	The learners independently practice occupational health and safety	LO 1. Importance of Occupational Health and Safety Procedures 1.1 recognize the importance of ohsp 1.2 explain safety regulations, hazard control practices, and procedures based on organization procedures	TLE_HECK7/8OHSP-0h-8
3. Types of Hazard/Risk in the work place 3.1. Physical 3.2. Biological 3.3. Chemical 3.4. Fire			LO 2. Identify Hazards and Risks in the Workplace 2.1 determine the types of hazards and risks the workplace	TLE_HECK7/8OHSP-0i-9
4. Control hazards and risks in the workplace 4.1. Environmental control 4.2. Work practice control			LO 3. Evaluate and Control Hazards and Risks in the Workplace 3.1 Follow consistently OHS procedure for controlling	TLE_HECK7/8OHSP-0j-10

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
4.3. Personal Protective Equipment (PPE) 5. Emergency-related drills and training 6. Occupational Health and Safety personal records			hazards/risks 3.2 Use Personal Protective Equipment (PPE) in accordance with OHS 3.3 Conduct emergency-related drills and training 3.4 Maintain OHSP awareness	

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
HOME ECONOMICS - COOKERY
Grade 9 (Specialization)**

Course Description:

Prerequisite: Grade 7/8 Cookery

This curriculum guide on Cookery leads to National Certificate Level II (NCII). This course is designed for a **Grade 9** student to develop knowledge, skills, and attitudes in the performance of Cookery tasks. It covers core competencies, namely: (1) cleaning and maintaining kitchen premises, (2) preparing appetizers, (3) preparing salads and dressings, (4) preparing sandwiches, (5) preparing desserts, and (6) packaging prepared foods.

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<p>Introduction</p> <ol style="list-style-type: none"> 1. Core concepts in cookery 2. Relevance of the course 3. Career opportunities 	The learners demonstrate an understanding of core concepts and underlying theories in cookery lessons	The learners independently demonstrate core competencies in cookery as prescribed in the TESDA Training Regulation	<p><i>The learners:</i></p> <ol style="list-style-type: none"> 1. explain core concepts in cookery 2. discuss the relevance of the course 3. explore opportunities for a career in cookery 	
CONCEPT REVIEW				
PERSONAL ENTREPRENEURIAL COMPETENCIES – PECs				
<ol style="list-style-type: none"> 1. Dimensions of Personal Entrepreneurial Competencies (PECs) <ol style="list-style-type: none"> 1.1. three clusters of PECS (achievement, planning, and power clusters) 1.2. characteristics 2. Assessment of PECs 	The learners demonstrate an understanding the dimensions and characteristics of PECs	The learners recommend specific strategies to improve “weak” areas and sustain “strong” areas in their PECs	<p>LO 1. Assess Personal Entrepreneurial Competencies</p> <ol style="list-style-type: none"> 1.1. explain dimensions/clusters of PECs and the different characteristic traits per cluster 1.2. evaluate one’s PECs 	TLE_PECs9-00-1
BUSINESS ENVIRONMENT AND MARKET (EM)				
<ol style="list-style-type: none"> 1. Factors in the business environment 2. Identifying business opportunities 	The learners demonstrate an understanding the different factors that influence the business environment.	<p>The learners analyze how factor influence the business environment.</p> <p>The learners relate experience in generating business ideas or identifying business opportunities.</p>	<p>LO 2. Understand the business environment and business ideas</p> <ol style="list-style-type: none"> 2.1 explain how different factors influence the business environment 2.2 explain procedures for generating business ideas or identifying business opportunities 2.3 generate business ideas 	TLE_EM9-00-1

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			and identify business opportunities	
CLEAN AND MAINTAIN KITCHEN TOOLS, EQUIPMENT, AND PREMISES (KP)				
1. Kitchen tools and equipment to be cleaned, sanitized, and stored 1.1. cutting tools and equipment 1.2. measuring tools and equipment 1.3. mixing tools and equipment 1.4. top-of-the-range equipment 1.5. baking tools and equipment 2. Types of chemicals used in cleaning and sanitizing kitchen tools and equipment 3. Methods of cleaning and sanitizing kitchen tools and equipment 4. Proper dishwashing techniques 5. Techniques in storing cleaned kitchen tools and equipment	The learners demonstrate an understanding the knowledge, skills, and attitudes required in maintaining kitchen tools, equipment, and work premises.	The learners independently maintain clean kitchen tools, equipment, and premises.	LO 1. Clean, sanitize, and store kitchen tools and equipment 1.1 recognize kitchen tools and equipment to be cleaned and sanitized 1.2 identify the chemicals to be utilized in cleaning and sanitizing kitchen tools and equipment 1.3 prepare cleaning agents in accordance with manufacturer's instructions 1.4 clean and sanitize kitchen tools in accordance with prescribed standards 1.5 store cleaned kitchen tools and equipment safely in the designated space	TLE_HECK9KP-Ia-1
6. Surfaces to be cleaned 6.1. walls 6.2. floors 6.3. shelves 6.4. benches and work surfaces 6.5. cooking equipment and appliances 6.6. cold storage equipment			LO 2. Clean and sanitize kitchen premises 2.1 recognize kitchen premises to be cleaned and sanitized 2.2 classify and describe the uses of cleaning agents 2.3 clean the kitchen area hygienically in accordance with food safety and	TLE_HECK9KP-Ib-2

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
6.7. storerooms and cupboards 7. Types and uses of cleaning agents 7.1. specifications 7.2. usage instructions 7.3. methods of mixing 7.4. precautionary measures 8. Sanitation procedures 9. Cleaning schedules			occupational health regulations 2.4 clean surfaces without damaging property and adversely affecting health 2.5 use cleaning agents in sanitizing kitchen premises safely 2.6 follow cleaning schedule based on enterprise procedures 2.7 follow safety and first aid procedures	
PREPARE APPETIZERS (PA)				
1. Identification of tools and equipment needed 2. Tools, equipment, and utensils needed in preparing appetizers 3. Cleaning, sanitizing, and preparing tools and utensils to be used 4. Classification of appetizers 5. Variety of ingredients in preparing appetizers 6. Nutritional value of appetizer	The learners demonstrate an understanding the knowledge, skills, and attitudes required in preparing appetizers	The learners independently prepares appetizers	LO 1. Perform <i>mise en place</i> 1.1 identify tools and equipment needed in the preparation of appetizers 1.2 clean, sanitize, and prepare tools, utensils, and equipment based on the required tasks 1.3 classify appetizers according to ingredients 1.4 identify ingredients according to the given recipe	TLE_HECK9PA-Ic-3
7. Varieties of hot and cold appetizers 8. Methods of preparing appetizers 9. Suggested projects 9.1. Canapés 9.2. Hors d'oeuvres 9.3. Fruit appetizers 9.4. Vegetable appetizers 9.5. Etc.			LO 2. Prepare a range of appetizers 2.1 differentiate between hot and cold appetizers 2.2 prepare a variety of appetizers 2.3 evaluate the finished product 2.4 rate the finished product using rubric	TLE_HECK9PA-Ic-3

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
10. Occupational Health and Safety (OHS)			2.5 follow workplace safety procedures	
11. Fundamentals of plating 12. Accompaniments of appetizers 13. Occupational Health and Safety (OHS)			LO 3. Present a range of appetizers 3.1 identify the fundamental of plating 3.2 identify the accompaniments of appetizers 3.3 present appetizers attractively 3.4 observe sanitary practices in presenting appetizers	TLE_HECK9PA-Ii-5
14. Principles and techniques in storing appetizers 15. Safety and hygienic practices			LO 4. Store appetizers 4.1 utilize quality trimmings 4.2 keep appetizers in appropriate conditions to maintain their freshness, quality, and taste	TLE_HECK9PA-Ij-6
PREPARE SALAD AND DRESSING (SD)				
1. Tools, equipment, and utensils needed in preparing salad and dressing 2. Classification of salads according to ingredients 3. Classification of salads according to place in the meal 4. Nutritional values of salad and dressing	The learners demonstrate an understanding he knowledge, skills, and attitudes required in preparing appetizers.	The learners independently prepare salad and dressing.	LO 1. Perform <i>mise en place</i> 1.1 identify tools and equipment needed in the preparation of salad and dressing 1.2 clean, sanitize, and prepare tools, utensils, and equipment based on the required tasks 1.3 identify ingredients according to the given recipe 1.4 prepare ingredients based on the required form and time frame	TLE_HECK9SD-IIa-7
5. Components of salads 6. Important considerations			LO 2. Prepare a variety of salads and dressings	TLE_HECK9SD-IIb-g-8

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
in salad preparation 7. Tools and equipment needed in salad making 8. Methods of preparing salad 9. Kinds of salad dressing and their ingredients			2.1 identify the components of a salad 2.2 identify the factors to consider in salad preparation 2.3 select and use correct equipment in preparing salads and dressings 2.4 prepare a variety of salad 2.5 identify the different kinds of salad dressings and their ingredients 2.6 prepare salad dressings 2.7 follow workplace safety procedures	
10. Factors and techniques in presenting salads and dressings 11. Factors to consider in plating and presenting salads 11.1. Balance 11.2. Harmony 11.3. Height 11.4. Color 11.5. Texture 12. Accompaniments of salads			LO 3. Present a variety of salads and dressings 3.1 Present salads and dressings attractively 3.2 Observe sanitary practices in presenting salad and dressing 3.3 Identify the accompaniments of salads and dressings 3.4 Rate the finished products using rubrics	TLE_HECK9SD-IIh-i-9
13. Safe and hygienic practices in storing salads and dressings 14. Temperature required in storing salads and dressings			LO 4. Store salad and dressing 4.1 Utilize quality trimmings 4.2 Store appetizers in appropriate conditions to maintain their freshness, quality, and taste	TLE_HECK9SD-IIj-10
PREPARE SANDWICHES (SW)				
1. Tools, equipment, and utensils needed in preparing sandwiches	The learners demonstrate an understanding how to prepare sandwiches	The learners independently prepare sandwiches	LO 1. Perform <i>mise en place</i> 1.1 clean, sanitize, and	TLE_HECK9SW-IIIa-11

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
2. Variety of ingredients in preparing sandwiches 3. Common culinary/industry terms used with regard to sandwiches 4. Classification of sandwiches			prepare tools, utensils, and equipment based on the required tasks 1.2 identify ingredients according to the given recipe 1.3 identify culinary terms related to sandwiches identify type/classification of sandwiches	
5. Components of the sandwich 6. Types of bread suited for sandwiches 7. Suitable filling and spreads for each type of sandwich 8. Methods of preparing sandwiches 9. Suggested Projects: 9.1. Hot sandwich 9.2. Cold sandwich 9.3. Open-faced sandwiches 9.4. Rolled sandwiches 9.5. Stuffed sandwiches 9.6. Etc.			LO 2. Prepare a variety of sandwiches 2.1 Identify sandwich component 2.2 Identify bread suited for sandwich making 2.3 Suitable filling and spreads 2.4 Select and prepare glazes/sweet sauces 2.5 Prepare sandwiches using sanitary practices	TLE_HECK9SW-IIIb-g-12
10. Portion control of sandwich and its ingredients 11. Creative sandwich preparation and presentation 11.1. Balance 11.2. Height 11.3. Texture 11.4. Flavor 11.5. Color			LO 3. Present a variety of sandwiches 3.1 Portion and control of sandwiches and their ingredients 3.2 Present sandwiches attractively	TLE_HECK9SW-IIIh-i-13

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
12. Safe and hygienic practices in storing sandwiches 13. Required temperature in storing sandwiches			LO 4. Storing sandwiches 4.1 store sandwiches properly 4.2 keep sandwiches in appropriate conditions to maintain their quality and taste	TLE_HECK9SW-IIIj-14
PREPARE DESSERTS (PD)				
1. Tools, equipment, and utensils needed in preparing deserts 2. Importance of desserts 3. Classifications of dessert and their characteristics			LO 1. Perform <i>mise en place</i> 1.1 Identify tools and equipment needed in preparing desserts 1.2 Importance of dessert in a meal 1.3 Classify desserts according to types of ingredients used 1.4 identify characteristics of desserts	TLE_HECK9PD-IVa-15
4. Varieties of ingredients in preparing desserts 5. Methods of preparing desserts 6. Sauces for desserts 7. Suggested Projects : 7.1. Fruit dessert 7.2. Cream dessert 7.3. Frozen dessert 7.4. Hot dessert 7.5. Etc.			LO 2. Prepare desserts 2.1 identify ingredients for desserts 2.2 select and prepare sweet sauces 2.3 prepare variety of desserts and sauces using sanitary practices 2.4 follow workplace safety procedures	TLE_HECK9PD-IVb-f-16
8. Accompaniments for desserts 9. Factors and techniques in plating and presenting deserts 9.1. Color 9.2. Texture 9.3. Height			LO 3. Plate/Present desserts 3.3 Identify dessert accompaniments and hygienic procedures 3.4 Present desserts attractively 3.5 Identify factors in plating	TLE_HECK9PD-IVg-17

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
9.4. Flavor 9.5. Balance			and presenting desserts	
10. Safety and hygienic practices in storing desserts 11. Required temperature in storing dessert			LO 4. Storing desserts 4.1 Keep desserts in appropriate conditions to maintain their quality and taste	TLE_HECK9PD-IVh-18
PACKAGE PREPARED FOOD STUFF (PF)				
1. Functions of food packaging and its importance 2. Types of packaging materials			LO 1. Select packaging materials 1.1 Define packaging, its importance and functions 1.2 Select packaging materials in accordance with enterprise standards	TLE_HECK9PF-IVi- 19
3. Safety procedures in packaging food 4. Methods of food packaging 5. Labeling of packaged food			LO 2. Package food items 2.1 Package food items in compliance with Occupational Health and Safety Procedures 2.2 Adopt appropriate packaging method according to enterprise standards 2.3 Label food according to industry standards	TLE_HECK9PF-IVj- 20

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HOME ECONOMICS - COOKERY
Grade 10 (Specialization)**

Course Description:

Prerequisite: Grade 9 Cookery

This curriculum guide on **Cookery** leads to National Certificate Level II (NCII). This course is designed for a **Grade 10** student to develop the knowledge, skills, and attitudes to perform Cookery tasks. It covers core competencies as follows: 1) preparation of egg dishes, 2) preparation of cereals and starch dishes, (3) preparation of vegetable dishes, (4) preparation and cooking of seafood dishes, (5) preparation of stocks, sauces, and soups, (6) preparation of poultry and game dishes, and (7) preparation of and cooking meat.

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
Introduction 1. Concepts in cookery 2. Relevance of the course 3. Career opportunities	The learners demonstrate an understanding of core concepts and principles in cookery.	The learners apply core competencies in cookery as prescribed in the TESDA Training Regulation.	<i>The learners:</i> 1. explain concepts in cookery 2. discuss the relevance of the course 3. explore career opportunities in cookery	
PERSONAL ENTREPRENEURIAL COMPETENCIES - PECs				
1. Assessment of Personal Competencies and Skills (PECs) vis-à-vis a practicing entrepreneur/employee in a 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. Application of PECs to the chosen business/career	The learners demonstrate an understanding one's PECs in cookery.	The learners independently create a plan of action that strengthens/ further develops one's PECs in cookery.	LO 1. Develop and strengthen PECs needed in Cookery 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_PECs10-00-1
ENVIRONMENT AND MARKET (EM)				
1. Product development 2. Key concepts in product development	The learners demonstrate an understanding the environment and market in	The learners independently create a business vicinity map reflective of a potential	LO 1. Develop a product/ service in Cookery 1.1. identify what is of	TLE_ 10EM-00-1

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
3. Finding value 4. Innovation 4.1. Unique Selling Proposition (USP)	cookery in one's town/municipality.	cookery market in the locality/town.	"value" to the customer 1.2. identify the customer 1.3. explain what makes a product unique and competitive 1.4. apply creativity and innovative techniques to develop marketable product 1.5. employ a Unique Selling Proposition (USP) to the product/service	
5. Selecting a business Idea 6. Key concepts in selecting a business idea 6.1. Criteria 6.2. Techniques			LO 2. Select a business idea based on the criteria and techniques set 2.1 enumerate various criteria and steps in selecting a business idea 2.2 apply the criteria/steps in selecting a viable business idea 2.3 determine a business idea based on the criteria/techniques set	TLE_HECG10EM-I0-2
7. Branding			LO 3. Develop a brand for the product 3.1 identify the benefits of having a good brand 3.2 enumerate recognizable brands in the town/province 3.3 enumerate the criteria for developing a brand 3.4 generate a clear and appealing product brand	TLE_HECG10EM-I0-3

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
Quarter 1				
LESSON 1 - PREPARE EGG DISHES (ED)				
1. Tools, utensils, and equipment needed in egg preparation 2. Cleaning and sanitizing tools and equipment 3. Nutritional value and components of eggs 4. Characteristics of quality fresh eggs 5. Ingredients for egg dishes			LO 1. Perform <i>mise en place</i> 1.1. clean, sanitize, and prepare tools, utensils, and equipment needed in preparing egg dishes 1.2. identify an egg's components and its nutritive value 1.3. identify and prepare ingredients according to standard recipes	TLE_HECK10ED-Ia-1
6. Market forms of egg 7. Uses of eggs in culinary arts 8. Varieties of egg dishes 9. Suggested projects: 10. Various egg dishes			LO 2. Prepare and cook egg dishes 2.1 identify the market forms of eggs 2.2 explain the uses of eggs in culinary arts 2.3 cook egg dishes in accordance with the prescribed salad	TLE_HECK10ED-Ib-d-2
11. Factors for consideration in presenting egg dishes: 11.1 Plating 11.2 Garnishing 11.3 Side dishes 12. OHS			LO 3. Present egg dishes 3.1 select suitable plates according to standards 3.2 present egg dishes hygienically and attractively using suitable garnishing and side dishes sequentially within the required time frame	TLE_HECK10ED-Ie-3
13. Evaluation of the finished product using rubrics			LO 4. Evaluate the finished product 4.1 rate the finished products using rubrics	TLE_HECK10ED-Ie-4

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
PREPARE CEREALS and STARCH DISHES (CD)				
1. Tools and equipment needed 2. Quality of cereals and starch dishes 3. Nutritional value and components of cereals and starch 4. Food sources and kinds of starch and cereals 5. Ingredients for starch and cereal dishes	The learners demonstrate an understanding preparing and cooking cereals and starch dishes	The learners independently prepare and cook cereals and starch dishes	LO1. Perform <i>mise en place</i> 1.1. prepare the tools, equipment, and ingredients based on prescribed standards 1.2. determine the sources and kinds of starch and cereals 1.3. identify the ingredients in the preparation of various types of starch and cereal dishes	TLE_HECK10CD-If-5
6. Methods of cooking starch and cereal dishes 7. Preparation of sauces and accompaniments for starch and cereal dishes 8. Safety and hygienic practices in the kitchen 9. Suggested projects: Cereal and starch dishes			LO2. Prepare starch and cereal dishes 2.1 cook various types of starch and cereal dishes 2.2 prepare sauces and accompaniments of selected starch and cereal products 2.3 follow safety and hygienic practices while working in the kitchen	TLE_HECK10CD-Ig-i-6
10. Factors to consider in presenting starch and cereal dishes 10.1. Plating 10.2. Garnishing 10.3. Sauces 10.4. Accompaniments			LO 3. Present starch and cereal dishes 3.1 present starch dishes with suitable plating and garnishing according to standards	TLE_HECK10CD-Ij-7
11. Techniques for storing starch and cereal dishes 12. FIFO			LO4. Storing starch and cereal dishes 4.1 store starch and cereal at appropriate temperature 4.2 maintain optimum freshness and quality of	TLE_HECK10CD-Ij-8

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			starch and cereal dishes according to standards 4.3 store starch and cereal according to standard operating procedures	
Quarter 2				
LESSON 1. PREPARE VEGETABLES DISHES (VD)				
1. Principles of preparing vegetables 2. Characteristics of quality vegetables 3. Thawing frozen vegetables	The learners demonstrate an understanding preparing and cooking vegetable dishes	The learners independently prepare and cook vegetable dishes	LO 1. Perform <i>mise en place</i> 1.1. identify ingredients according to standard recipe 1.2. prepare ingredients according to a given recipe, required form, and timeframe 1.3. thaw frozen ingredients and wash raw vegetables following standard procedures	TLE_HECK10VD-IIa-9
4. Market forms of vegetables 5. Factors in the selection of vegetables used for culinary arts 6. Methods of cooking vegetables dishes 7. Preparation of sauces and accompaniment for serving vegetable dishes 8. Suggested projects: Various vegetable dishes			LO 2. Prepare vegetable dishes 2.1 identify market forms of vegetables 2.2 select various kinds of vegetables according to a given menu 2.3 cook variety of vegetable dishes following appropriate cooking methods to preserve optimum quality and nutrition 2.4 prepare suitable sauces and accompaniment in serving vegetable dishes	TLE_HECK10VD-IIb-c-10
9. Presentation of prepared vegetables dishes			LO 3. Present vegetable dishes	TLE_HECK10VD-IIId-11

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
10. Factors in plating vegetable dishes			3.1 present vegetable recipes with appropriate sauces and accompaniments	
11. Techniques in storing and vegetables 12. FIFO 13. Safety and hygienic practices in the laboratory kitchen			LO 4. Store vegetables 4.1 store vegetables based on the prescribed location and temperature 4.2 demonstrate vegetable storage in accordance with FIFO operating procedures 4.3 follow standard safety and hygiene procedures	TLE_HECK10VD-IId-12
14. Evaluation of the finished product using rubrics			LO 5. Evaluate the finished product 5.1 rate the finished products using rubrics	TLE_HECK10VD-IId-13
LESSON 2. PREPARE AND COOK SEAFOOD DISHES (PC)				
1. Types of Seafood 1.1. Shellfish 1.2. Fin fish 1.3. Others 2. Varieties of Fish 2.1. Structure 2.2. Body shape 2.3. Market forms 2.4. Fat contents 2.5. Water source 2.6. Processed fish 2.7. Others 3. Market forms of fish and fish products 4. Fish cuts 5. Composition and nutritive value of fish 6. Processing Fish 6.1. Scaling 6.2. Cutting of tails and fins	The learners demonstrate an understanding preparing and cooking seafood dishes.	The learners independently prepares and cooks seafood dishes	LO 1. Perform <i>Mise en Place</i> 1.1. prepare the kitchen tools, equipment, and ingredients based on required standards 1.2. identify types, varieties, market forms, nutritive value, and composition of fish and seafood 1.3. assemble ingredients according to recipes, recipe card, or enterprise standard 1.4. identify steps in processing fish	TLE_HECK10PC-IIe-14

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
6.3. Eviscerating 6.4. Cleansing 6.5. Canning				
7. Methods in thawing frozen ingredients 8. OHS			LO 2. Handle fish and seafood 2.1 handle seafood hygienically 2.2 thaw frozen seafood correctly to ensure maximum quality and maintain nutritional value	TLE_HECK10PC-IIif-15
9. Principles of cooking fish and sea food dishes 10. Dry-heat cookery 11. Moist-heat cookery 12. Variety of shellfish and fish dishes			LO 3. Cook fish and shellfish 3.1 clean, cut, and fillet seafood 3.2 prepare ingredients according to a given recipe 3.3 demonstrate various methods of cooking fish and shellfish	TLE_HECK10PC-IIgi-16
13. Presentation of fish and seafood dishes 14. Plating 15. Garnishing 16. Guidelines in serving fish and seafood dishes			LO 4. Plate/Present fish and seafood 4.1 prepare and present fish and seafood dishes 4.2 perform guidelines in serving fish and seafood dishes	TLE_HECK10PC-IIj-17
17. Factors in storing and handling seafood 18. Storage requirements for fish 19. Minimization techniques in relation to seafood			LO 5. Store fish and seafood 5.1 ensure that trimmings, fish, and seafood are stored hygienically 5.2 check date stamps and codes where applicable to ensure quality control	TLE_HECK10PC-IIj-18

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			5.3 store seafood in accordance with FIFO operating procedures and standard storage requirements	
20. Evaluation of the finished product			LO 6. Evaluate the finished product 6.1 rate the finished products using rubrics	TLE_HECK10PC-IIj-19
Quarter 3				
LESSON 1. PREPARE STOCKS, SAUCES AND SOUPS (SSS)				
1. Principles of preparing stocks 2. Classifications of stocks 3. Ingredients in preparing stocks 4. Types and uses of convenience products 5. Methods of preparing stocks 6. Suggested Projects: 6.1. White stock 6.2. Brown stock	The learners demonstrate an understanding basic concepts and underlying theories in preparing stocks, sauces, and soups	The learners prepares a variety of stocks, sauces, and soups used in different cultures	LO 1. Prepare stocks for menu items 1.1 use ingredients and flavoring according to enterprise standards 1.2 produce variety of stocks according to enterprise standards	TLE_HECK10SSS-IIIa-20
7. Classifications of soups 8. Ingredients in preparing soups 9. Techniques in presenting and evaluating soups 10. Suggested soup recipes 11. Garnishes for the presentation of soups 12. Techniques in presenting and evaluating soups 13. Criteria in presenting and evaluating soup recipes (e.g. right flavor, color, temperature, service ware, and suitable garnishes and			LO 2. Prepare soups required for menu items 2.1 select and assemble correct ingredients in preparing soups, including stocks and garnishes 2.2 prepare variety soup recipes according to enterprise standards 2.3 present and evaluate soup recipes in accordance with the criteria	TLE_HECK10SSS-IIIb-21

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<p>accompaniments) 14. Suggested projects: Various kinds of soup</p>				
<p>15. Classification of Sauces 16. Ingredients in preparing sauces 17. Methods of preparing sauces 18. Types of thickening agents and convenience products used in preparing sauces 19. Role of thickening agents and convenience products in the preparation of sauces 20. Criteria for evaluating sauces 21. Common problem in the preparation of sauces 22. Suggested project: Various type of sauces</p>			<p>LO 3. Prepare sauces required for menu items 3.1 classify various types of sauces and their corresponding 3.2 prepare a variety of hot and cold sauces based on the required menu items 3.3 identify the types of thickening agents and convenience products used in preparing sauces 3.4 use thickening agents and convenience products appropriately 3.5 evaluate sauces for flavor, color, and consistency 3.6 identify and deal with problems in the preparation of sauces</p>	TLE_HECK10SSS-IIIc-22
<p>23. Methods of storing and reheating stocks, sauces, and soups 24. OHS</p>	The learners demonstrate an understanding concepts and principles in storing and reheating stocks, sauces, and soups	The learners independently demonstrates competencies in storing and reheating stocks, sauces, and soups	<p>LO 4. Store and reconstitute stocks, sauces, and soups 4.1 maintain optimum quality and freshness of stocks, sauces, and soups 4.2 reconstitute stocks, sauces, and soups</p>	TLE_HECK10SSS-IIIId-23
<p>25. Evaluation of the finished product using rubrics</p>			<p>LO 5. Evaluate the finished product 5.1 rate the finished products using rubrics</p>	TLE_HECK10SSS-IIIId-24
LESSON 2. PREPARE POULTRY AND GAME DISHES (PGD)				

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
1. Preparation of poultry for cooking 1.1. Slaughter and bleeding 1.2. Scalding 1.3. Defeathering 1.4. Evisceration 1.5. Deboning 2. Market forms of poultry 3. Poultry cuts	The learners demonstrate an understanding basic concepts and underlying theories in preparing poultry and game dishes	The learners prepare a variety of poultry and game dishes found in different cultures	LO 1. Performs <i>mise en place</i> 1.1. prepare the tools, equipment, and ingredients based on standards 1.2. identify the market forms of poultry 1.3. determine poultry cuts in accordance with prescribed dish	TLE_HECK10PGD-IIIe-25
4. Types and causes of food spoilage and cross-contamination 5. Methods of cooking poultry and game birds 5.1. Dry-heat cookery 5.2. Moist-heat cookery 6. Nutritional value of poultry and game bird dishes			LO 2. Cook poultry and game bird dishes 2.1 prepare poultry and game birds hygienically to minimize risk of food spoilage and cross-contamination 2.2 cook various poultry and game bird dishes appropriately	TLE_HECK10PGD-IIIif-h-26
7. Factors in presenting/plating poultry and game-bird dishes 8. Types of service ware 9. Plating 10. Garnishing 11. Sauces 12. Accompaniment			LO 3. Plate/present poultry and game bird dishes 3.1 identify the type of service ware to be utilized in serving poultry and game-bird dishes 3.2 present plated poultry and game-bird dishes with appropriate sauces, garnishes, and accompaniments	TLE_HECK10PGD-IIIi-27
13. Techniques in storing poultry and game bird			LO 4. Store poultry and game bird 4.1 store and maintain poultry and game bird according	TLE_HECK10PGD-IIIj-28

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			to standards	
14. Evaluation of the finished product using rubrics			LO 5. Evaluate the finished product 5.1 rate the finished products using rubrics	TLE_HECK10PGD-IIIj-29
Quarter 4				
LESSON 1 - PREPARE AND COOK MEAT (PCM)				
1. Principles in meat preparation 2. Market forms of meat 3. Different kinds of meat 3.1. Beef 3.2. Pork 3.3. Carabeef 3.4. Others 4. Different types of meat cuts 5. Tools, utensils, and equipment for meat preparation 6. Techniques in meat tenderizing	The learners demonstrate an understanding preparing and cooking meat dishes	The learners independently prepare and cook meat dishes	LO 1. Perform <i>mise en place</i> 1.1. prepare the tools, equipment, ingredients, and other supplies based on the given recipe 1.2. prepare the tools, equipment, ingredients, and other supplies based on the given recipe	TLE_HECK10PCM-IVa-30
7. Variety of meat dishes 8. Methods of cooking meat 8.1. Dry-heat cooking 8.2. Moist-heat cooking 9. Cooking specialty cuts 10. Cooking frozen meat 11. Types of marinades			LO 2. Cook meat cuts 2.1 identify the market forms and cuts of meat 2.2 prepare meat cuts according to the given recipe 2.3 prepare and use suitable marinades for a variety of meat cuts 2.4 identify appropriate cooking methods for meat cuts 2.5 apply the different techniques in meat preparation 2.6 cook meat-cut dishes according to the given	TLE_HECK10PCM-IVb-g-31

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			recipe	
12. Methods of presenting meat dishes 13. Plating 14. Garnishing 15. Portion control for cooked meat			LO3. Present meat dishes 3.1 present meat dishes aesthetically, based on classical and cultural standards 3.2 select suitable plate according to standard in serving meat dishes 3.3 present meat dishes hygienically and sequentially within the required timeframe	TLE_HECK10PCM-IVh-32
16. Techniques in storing meat 1.1. Types of containers 1.2. Temperature 1.3. FIFO requirements			LO4. Store meat 4.1 utilize quality trimmings and leftovers in storing meat 4.2 store fresh and cryovac-packed meat according to health regulations 4.3 use required containers and store meat in proper temperature to maintain quality and freshness 4.4 store meat in accordance with FIFO operating procedures and meat storage requirements	TLE_HECK10PCM-IVi-33
17. Evaluation of the finished product using rubrics			LO5. Evaluate the finished product 5.1 rate the finished products using rubrics	TLE_HECK10PCM-IVj-34

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GLOSSARY**

Abrasive cleaner	A cleaner that comes in powder and liquid form and contains a kind of built-in elbow grease, which helps cut down on the hard rubbing required to remove soil.
Acid cleaner	A detergent that partially or totally consists of one or more acids; it is used periodically on mineral deposits and other soils that detergents cannot remove; it is also often used to remove scale in ware washing machines and steam tables.
Aluminum	A silvery white, soft, ductile metal; it is the best kitchen utensil for all-around use, also the most popular, lightweight, attractive and less expensive.
Bacteria	A simple, single-celled microorganism which needs moisture and warmth in order to thrive.
Baster	A handy kitchen tool used for returning some of the meat or poultry juices from the pan, back to the food.
Blender	A kitchen appliance that is used to chop, blend, mix, whip, puree, grate, and liquefy all kinds of food.
Boning knife	A tool used to fillet fish and to remove raw meat from its bone.
Butcher knife	A tool used to section raw meat, poultry, and fish. It can be used as a cleaver to separate
Cast Iron	A ferrous alloy which has been heated until it liquefies, and is then poured into a mould to solidify a material used for making pots and pans.
Ceramic and heat-proof glass	A material of which baking dishes, casseroles, and measuring cups are made; Glass and ceramic conduct heat slowly and evenly; it may be decorated and can go from stove or oven to the dining table.
Citrus knife	A tool with a blade that has a two-sided, serrated edge and is used to section citrus fruits.
Cleaning	The process of removing food and other types of soil from a surface, surfaces, and equipment such as a dish, glass, or cutting board; a physical removal of visible soil and food.
Concentration	The amount of a substance in a specific space or substance. (Example: The presence of too little sanitizer will result in an inadequate reduction of harmful microorganisms while too much can be toxic.)
Contact time	The recommended length of time by which a sanitizer (either heat or approved chemical) kills harmful microorganisms the cleaned item must be in contact with the sanitizer
Colander	Also called a vegetable strainer; a perforated bowl used to strain off liquid from food, used in cleaning vegetables or straining pasta or canned food.
Detergent	A water-soluble cleansing agent that combines with impurities and dirt to make them more soluble and differs from soap in not forming a scum with the salts in hard water
Disinfectant	A substance used to destroy germs and diseases.
Double boiler	A type of cooker used when the temperature must be kept below boiling, such as for egg sauce and puddings; it is also used to keep foods warm without overcooking.
Dredger	A tool used to shake flour, salt, and pepper on meat, poultry, and fish.
Electroshock	The passage of electric current through the body; it may be caused by touching exposed electrical wire or a piece of electrical equipment which is not grounded properly.
Emery board/sharpening steel	A thing used to sharpen cooking knives.
Exterminate	To destroy totally,
Filth	Dirt; grime; mud etcetera.
Flipper	A cooking tool used for turning hamburgers and other food items.
Force Majeure	A calamity caused by nature e.g. storm, flood, earthquake; an unexpected or unforeseeable event; a great and

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	uncontrollable force.
French knife or chef's knife	A cutting tool used to chop, dice, or mince food.
Fruit and salad knife or lettuce knife	A utensil that has a serrated blade and is used to prepare salad greens, vegetables, and fruits.
Funnel	A pipe with a wide and often conical mouth and a narrow stem, used to fill jars, bottles and other things which have a small opening.
Garlic Press	A kitchen tool which is specifically designed for the purpose of pulping garlic for cooking.
Glass	A hard, brittle substance, typically transparent or translucent, made by fusing sand with soda, lime, etc. and cooling rapidly; it is good for baking but not practical on top or surface cooking.
Grater	A kitchen tool used to grate, shred or slice food into smaller pieces.
Grate	To rub food against the rough surface of a metal device having holes through which small pieces of the food fall as they break off.
Grounded	Occurs when the electrical conductor is connected to the ground, which becomes part of the electrical circuit.
Handy Poultry & Roasting Tool	Tools that make it easier to lift a hot roasted turkey or other poultry from the roaster to the serving platter, without it falling apart.
Hazard	A thing or situation that could be dangerous to people in the workplace.
Infestation	The state of being infested as with parasites or vermin.
Island	An indispensable food preparation station which can act as a butcher block area. It is also an ideal place to add an extra sink or an island grill,
Kitchen	A room especially set apart to contain the necessary utensils and equipment for cooking food.
Kitchen Knife	A cook's or chef's tool, that is used for all types of kitchen tasks, from peeling an onion and slicing carrots, to carving a roast or turkey.
Kitchen Shears	A tool that is practical for opening food packages, cutting tape or string to package foods or simply to remove labels or tags from items.
L-Shaped Kitchen	A kitchen shape that is one of the most flexible and most popular; a compact triangular workspace.
Microorganism	Living cells so small that they can only be seen through a microscope. They are commonly found to contaminate food. Examples include bacteria, molds, and yeast.
Microwave Oven	A kitchen appliance whereby food can be prepared ahead of time, frozen or refrigerated and cooked or heated quickly using such appliance.
Molds	A microorganism that has "furry" growth and is often found on spoiled food.
Paring knife	A tool used to core, peel, and section fruits and vegetables; it has blades that are short and concave with hollow ground.
Parts per million (PPM)	The mass ratio between the pollutant component and the solution; it is a measure of small levels of pollutants in air, water, body fluids, etc.; it usually describes the concentration of something in water or soil. One ppm is equivalent to 1 milligram of something per liter of water (mg/l) or 1 milligram of something per kilogram soil (mg/kg).
Pasta Spoon or Server	A utensil that is used to transfer a little or much cooked pasta to a waiting plate, without mess.
Plastic and Hard Rubber	The material used for making cutting and chopping boards, table tops, bowls, trays, garbage pails and canisters. They are much less dulling to knives than metal and more sanitary than wood. Plastics are greatly durable and cheap but may not last long.
Pedestal	A base or support.

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Potato Masher	A tool used for mashing cooked potatoes, turnips, carrots or other soft cooked vegetables.
Refrigerator/Freezer	An appliance that is necessary for the prevention of bacterial growth in food.
Roast beef slicer	A tool used to slice roasts, ham, and thick, solid cuts of meats.
Rotary eggbeater	A tool used for beating small amounts of eggs or batter; it is usually made of stainless steel and a gear driven for easy rotation.
Sanitation	The science and practice of maintaining clean and healthy conditions for food production so that the food served will not any person ill.
Sanitizer	A chemical agent used for cleansing and sanitizing surfaces and equipment.
Sanitizing	The process of reducing number of harmful organisms to safe level on food contact services.
Scraper	A rubber or silicone tool used in blending or scraping food from a bowl; metal, silicone or plastic egg turners or flippers
Seafood Serving Tool	Things that make the task of cleaning seafood and removing the shell much easier.
Serving spoon	A utensil consisting of a small, shallow bowl on a handle, used in preparing, serving, or eating food.
Serving Tongs	A tool that enables grabbing and transferring larger food items, poultry or meat portions to a serving platter, to a hot skillet or deep fryer, or to a plate more easily.
Solvent cleaner or degreaser	Something used periodically on surfaces where grease has been burned.
Soup Ladle	A utensil that is used for serving soup or stews, but can also be used for gravy, dessert sauces or other dish.
Spatula	A utensil used to level off ingredients when measuring and to spread frostings and sandwich fillings –
Spoon	A utensil consisting of a small shallow bowl, oval or round, at the end of a handle.
Stack	A case composed of several rows of shelves.
Stainless Steel	The most popular material used for tools and equipment, and is also more expensive. It is easier to clean and shine and does not wear out easily.
Teflon	A special coating applied to the inside of some aluminum or steel pots and pans. It helps food from not sticking to the pan and is easier to wash and clean.
Temperature scale/s	A tool used to measure heat intensity.
The Island Option	A kitchen layout that is most often seen in L-Shaped kitchens. It can keep work areas traffic-free and create a wealth of extra counter and storage space..
The G-Shaped Kitchen	A kitchen style that is very much like the U-Shaped with the addition of an elongated partial wall, which offers a great deal of space.
The Corridor/Galley Kitchen	A kitchen style which makes the most out of a small space.
The Single Wall/Pullman Kitchen	A kitchen style designed for homes or apartments, and which offers a very open and airy feel.
Toxin	A poisonous substance that makes a person sick.
Two-tine fork	A utensil used to hold meat while slicing, and to turn solid pieces of meat while browning or cooking.
U-Shaped Kitchen	A kitchen layout named for the "U" shape it resembles,
Vegetable peeler	A tool used to scrape vegetables such as carrots and potatoes, and to peel fruits.
Whisk	A tool used for whipping eggs or batter, and for blending gravies, sauces, and soups.
Wooden spoon	A utensil that is made of wood and is essential because of its usefulness for creaming, stirring, and mixing.
Work Center	The space in a kitchen which focuses around major appliances such as the refrigerator-freezer, range, or sink. These centers make possible an orderly flow of activities connected with food storage, preparation, cooking serving, and clean-up.
Workflow	How work is done most efficiently as when it flows in a natural progression, either from left to right or right to left.
Work Simplification	Doing the job in the easiest, simplest and quickest way.

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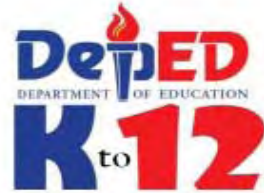
Work Station	A specific work area where a particular kind of food is prepared or where a specific job is done.
Work Triangle	An imaginary line drawn from each of the three primary work stations, which helps to avoid traffic flow problems in the kitchen.

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HOME ECONOMICS - COOKERY**

**Code Book Legend
Sample: TLE_HECK10PCM-IVj-34**

LEGEND		SAMPLE	
First Entry	Learning Area and Strand/ Subject or Specialization	Technology and Livelihood Education_Home Economics Cookery	TLE_HECK10
	Grade Level	Grade 10	
Uppercase Letter/s	Domain/Content/ Component/ Topic	Prepare and Cook Meat	PCM
			-
Roman Numeral <i>*Zero if no specific quarter</i>	Quarter	Fourth Quarter	IV
Lowercase Letter/s <i>*Put a hyphen (-) in between letters to indicate more than a specific week</i>	Week	Week Ten	j
			-
Arabic Number	Competency	Evaluate the Finished Product	34

DOMAIN/ COMPONENT	CODE
Personal Entrepreneurial Competencies	PECS
Environment And Market	EM
Use Of Kitchen Tools, Equipment, And Paraphernalia	UT
Maintenance Of Kitchen Tools, Equipment, And Paraphernalia	MT
Perform Mensuration And Calculations	PM
Interpret Kitchen Layout	KL
Practice Occupational Health And Safety Procedures	OSHP
Clean And Maintain Kitchen Tools, Equipment And Premises	KP
Prepare Appetizers	PA
Prepare Salad And Dressing	SD
Prepare Sandwiches	SW
Prepare Desserts	PD
Package Prepared Food Stuff	PF
Prepare Egg Dishes	ED
Prepare Cereals And Starch Dishes	CD
Prepare Vegetables Dishes	VD
Prepare And Cook Seafood Dishes	PC
Prepare Stocks, Sauces And Soups	SSS
Prepare Poultry And Game Dishes	PGD
Prepare And Cook Meat	PCM



Front Office Services

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
HOME ECONOMICS – FRONT OFFICE SERVICES
Grade 7/8 (Exploratory)**

Course Description:

This is an exploratory and introductory course that leads to **FRONT OFFICE SERVICES (FOS)** National Certificate Level II (NC II). It covers **five** common competencies that a **Grade7/8** Technology and Livelihood Education (TLE) student ought to possess, namely: 1) use of tools, equipment, and paraphernalia; 2) maintenance of tools, equipment, and paraphernalia 3) mensuration and calculation, 4) the practice of Occupational Health and Safety (OHS) procedures, and 5) interpretation of designs and layout.

The preliminaries of this exploratory course include the following: 1) discussion of 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
<p>Introduction</p> <ol style="list-style-type: none"> Basic concepts in Front Office Services (FOS) Relevance of the course Career opportunities 	<p><i>The learners demonstrate an understanding of:</i></p> <p>basic concepts and theories in FOS</p>	<p><i>The learners:</i></p> <p>independently demonstrate common competencies in FOS as prescribed in the TESDA Training Regulation</p>	<p><i>The learners:</i></p> <ol style="list-style-type: none"> explain basic concepts in FOS discuss the relevance of the course explore opportunities in FOS as a career 	
PERSONAL ENTREPRENEURIAL COMPETENCIES				
<ol style="list-style-type: none"> Assessment of Personal Entrepreneurial Competencies and Skills (PECs) vis-à-vis a practicing entrepreneur/employee <ol style="list-style-type: none"> Characteristics Attributes Lifestyle Skills Traits Analysis of PECs in relation to a practitioner 	<p>one's PECs</p>	<p>recognize his/her PECs and prepare an activity plan that aligns with that of a practitioner/entrepreneur in FOS</p>	<p>LO 1. Recognize PECs needed in Front Office Services</p> <ol style="list-style-type: none"> 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 PECs with those of a practitioner/ entrepreneur 1.4. align one's PECs with those of a practitioner/ entrepreneur 	<p>TLE_PECs7/8-00-1</p>
ENVIRONMENT AND MARKET (EM)				
<ol style="list-style-type: none"> Key concepts in environment and market Products and services available in the market 	<p>environment and market that relate with a career choice in FOS</p>	<p>independently generate a business idea based on the analysis of environment and market in FOS</p>	<p>LO 1. Generate a business idea that relates with a career choice in FOS</p> <ol style="list-style-type: none"> 2.1. conduct SWOT analysis 2.2. identify the different 	<p>TLE_PECs7/8-00-2</p>

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
3. Differentiation of products and services 4. Customers and their buying habits 5. Market competition 6. SWOT analysis			products/services available in the market 2.3. generate potential business idea based on the SWOT analysis	
LESSON 1: USE TOOLS, EQUIPMENT, AND PARAPHERNALIA (UT)				
1. Types and functions of tools 2. Classification of tools, equipment, and paraphernalia	the use of tools, equipment, and paraphernalia in FOS	independently use tools, equipment, and paraphernalia in FOS	LO 1. Identify FOS tools, equipment, and paraphernalia applicable to a specific job 1.1. classify equipment, tools, and paraphernalia according to types and functions 1.2. describe equipment, tools, and paraphernalia based on the specified task	TLE_HEFS7/8UT-0ab-1
3. Proper usage of tools, equipment, and paraphernalia			LO 2. Use FOS tools, equipment, and paraphernalia 1.1. use equipment, tools, and paraphernalia based on the task requirements 1.2. conduct a performance-based assessment for using tools, equipment, and paraphernalia	TLE_HEFS7/8UT-0ab-2
4. Evaluation of the performance in using FOS tools, equipment, and paraphernalia			LO3. Conduct self-evaluation on the required performance 1.1. Perform self-evaluation with regard to the use of FOS tools, equipment, and paraphernalia using rubrics	TLE_HEFS7/8UT-0ab-3
LESSON 2: MAINTAIN TOOLS, EQUIPMENT, AND PARAPHERNALIA				
1. Procedures in cleaning and storing tools, equipment, and paraphernalia 2. Care of materials and paraphernalia	maintaining tools, equipment, and paraphernalia in FOS	independently maintain FOS tools, equipment, and paraphernalia	LO 1. Perform after-care activities for tools, equipment, and paraphernalia 1.1. clean tools, equipment, and paraphernalia after use according to standard operating procedures	TLE_HEFS7/8UT-0c-4

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			1.2. store tools, equipment, and paraphernalia in appropriate area in accordance with safety procedures 1.3. check tools, equipment, and paraphernalia regularly for orderliness/tidiness using a checklist 1.4. carry out routine maintenance as per Standard Operating Procedures (SOP) 1.5. use rubrics in evaluating the performance in rendering aftercare activities	
3. Evaluation of the performance in maintaining FOS tools, equipment, and paraphernalia			LO2. Conduct self-evaluation on the required performance 2.1. Perform self-evaluation in the maintenance of FOS tools, equipment, and paraphernalia using rubrics	TLE_HEFS7/8UT-0d-5
LESSON 3: PERFORM MENSURATION AND CALCULATIONS (MC)				
1. Ratio and proportion 2. Fractions 3. Conversions 4. Steps in preparing simple reports in relation to FOS	performing calculations in FOS	independently perform calculations in FOS	LO 1. Perform simple calculations 1.1. perform computations involving ratio, proportion, fractions, and conversion 1.2. prepare simple report from arrival to departure of customers 1.3. evaluate FOS-related reports using rubrics	TLE_HEFS7/8MC-0e-6
5. Evaluation of performance in mensuration and calculations using rubrics			LO2. Conduct self-evaluation on required performance 2.1. perform self-evaluation of mensuration and calculations using rubrics	TLE_HEFS7/8MC-0f-7
LESSON 4: PRACTICE OCCUPATIONAL HEALTH AND SAFETY (OHS) PROCEDURES				
1. OHS procedures and practices and regulations 2. Hazards/risks identification and	the practice of occupational health and safety procedures in FOS	independently practice occupational health and safety procedures in FOS in accordance	LO 1: Identify hazards and risks 1.1. clarify and explain regulations and workplace safety and hazard control practices and	TLE_HEFS7/8OHS-0g-8

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
control 3. Organization safety and health protocol 4. Safety consciousness 5. Health consciousness 6. Practice of personal hygiene		with standards	procedures 1.2. identify hazards/risks in the workplace and their corresponding indicators 1.3. recognize and establish contingency measures in case of workplace accidents, fire, and other emergencies	
7. Threshold Limit Value (TLV) 8. OHS indicators 9. Hazards/risks identification and control skills 10. Personal Protective Equipment (PPE) types and uses			LO 2: Evaluate and control hazards and risks 2.1. identify terms of maximum tolerable limits, which when exceeded, will result in harm or damage based on TLV 2.2. determine effects of hazards 2.3. report to designated personnel Occupational Health Safety (OHS) issues and/or concerns and identified safety hazards 2.4. follow OHS procedures for controlling hazards/risks in the workplace 2.5. use PPE 2.6. provide assistance in the event of a workplace emergency in accordance with protocol 2.7. use rubrics in evaluating the preparedness of a given agency in terms of hazards and risks in the workplace	TLE_HEFS7/8OHS-0h-9
11. Interpersonal skills 12. Communication skills 13. Personal hygiene practices			LO 3: Maintain OHS awareness 3.1. participate in emergency-related drills and trainings 3.2. complete and update OHS personal records 3.3. evaluate the level of OHS awareness using rubrics	TLE_HEFS7/8OHS-0i-10
14. Evaluation of performance in the practice of occupational health			LO4. Conduct self-evaluation on the required performance	TLE_HEFS7/8OHS-

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
and safety procedures			4.1. perform self-evaluation in the practice of occupational health and safety procedures using rubrics	0i-11
LESSON 5: INTERPRET DESIGN AND LAYOUT (ID)				
1. Alphabet of lines 2. Front-office reception layouts	how to interpret layout areas of front-office reception	independently interpret layouts areas of front-office reception	LO 1. Read and interpret front-office reception area 1.1. read and interpret symbols and layout in a given sample plan for a front-office reception area 1.2. describe parts and functions of a front-office reception layout 1.3. evaluate a sample front office reception layout	TLE_HEFS7/8ID-0j-12
3. Evaluation of performance in the interpretation of designs and layouts			LO2. Conduct self-evaluation on the required performance 2.1. perform self-evaluation in the interpretation of designs and layouts using rubrics	TLE_HEFS7/8ID-0j-13

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GRADE 9**

Course Description:

This curriculum guide for Front Office Services leads to National Certificate Level II (NCII). This course is designed for a Grade 9 student to develop knowledge, skills, and attitudes to perform the tasks on Front Office Services. It covers core competencies, namely: 1) receiving and processing reservation, 2) operating a computerized reservation system, 3) providing accommodation reception services, (4) conducting night audit, 5) providing club reception services, and 6) providing porter services. The preliminaries of this course include the following: 1) discussion of 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 1. Core concepts in Front Office Services (FOS) 2. Relevance of the course 3. Career opportunities	<i>The learners demonstrate an understanding of:</i> the concepts and theories in FOS	<i>The learners:</i> independently demonstrate competencies in FOS as prescribed in the TESDA Training Regulation	<i>The learners:</i> 1. explain basic concepts in FOS 2. discuss the relevance of the course 3. explore opportunities for a career in FOS	
PERSONAL ENTREPRENEURIAL COMPETENCIES				
1. Dimensions of Personal Entrepreneurial Competencies (PECs) 1.1. Three Clusters of PECs (Achievement, Planning, Power Clusters) 1.2. Characteristics 2. Assessment of Personal Competencies and Skills (PECs)	PECs' dimensions and characteristics	recommend specific strategies to improve "weak" areas and sustain "strong" areas of their PECs	LO 1. Assess Personal Entrepreneurial Competencies 1.1. explain dimensions/clusters of PECs and the different characteristic traits per cluster 1.2. evaluate one's PECs	TLE_PECs-I0-1
BUSINESS ENVIRONMENT AND MARKET (EM)				
1. Factors included in the business environment 2. Identifying business opportunities	the different factors that influence the business environment	1. analyze how factors influence the business environment 2. relate experience in generating business ideas or identifying business opportunities	LO 2. Understand the business environment and business ideas 2.1. explain how different factors influence the business environment 2.2. explain procedures for generating business ideas or identifying business opportunities 2.3. generate business ideas	TLE_EM9-I0-1

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			and identify business opportunities	
QUARTER 1 LESSON 1: RECEIVE AND PROCESS RESERVATIONS (RR)				
1. The lodging industry 2. Front Office operations 3. Detailed information of the establishment must include: a. <i>General description</i> b. <i>Room types</i> c. <i>Room rates</i> d. <i>Hotel facilities</i> e. <i>Hotel policies</i> f. <i>Others</i>	receiving and processing reservations	independently receives and processes reservations	LO1. Receive reservation request 1.1. determine for and advise customer of the availability of the reservation 1.2. offer alternatives, including waitlist options, if requested booking is not available 1.3. respond to inquiries regarding rates and other product features according to established procedures	TLE_HEFS9RR-Ia-1
4. Reservation: key terms 5. Different types of reservations 6. Reservation inquiries and their distribution channels 7. The process of taking group reservations 8. Group reservation issues			LO 2. Record details of reservation 2.1. record complete customer details accurately against his/her booking in a manner that ensures correct interpretation by others who may access the reservation details 2.2. check customer profile or history, if available, and use the information to enhance customer service	TLE_HEFS9RR-Ib-2

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCY	CODE
			2.3. confirm all booking details with the customer and ensure that s/he understands and agrees to all items 2.4. file reservations in a manner that ensures easy access by others and in accordance with established procedures 2.5. prepare and issue documents and other materials to the customer in accordance with requirements of the specific reservation	
9. Receiving, processing and recording payments and necessary actions to be taken in case of cancellations 10. Generating and issuing invoices and credit notes for changed reservations 11. Checking that the reservation has been fully paid			LO 3. Update reservations 3.1. update financial status of the reservation accurately 3.2. receive, process, and record amendments or cancellations of reservations in accordance with customer request and established procedures	TLE_HEFS9RR-Ic-3
12. Front Office responsibilities 13. Accepting reservations 14. Reservation request			LO4. Advise others on reservation details 4.1. communicate general and specific customer requirements and reservation details to appropriate departments and colleagues 4.2. compile and provide accurate and relevant reservation statistics to concerned people or	TLE_HEFS9RR-Id-4

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCY	CODE
			departments	
15. Evaluation of performance in receiving and processing reservations			LO5. Conduct self evaluation on the required performance rating 5.1. Conduct self-evaluation of performance in receiving and processing reservations using rubrics	TLE_HEFS9RR-Ie-5
LESSON 2: OPERATE COMPUTERIZED RESERVATION SYSTEM (OR)				
1. Types of reservation systems 1.1. <i>Property level</i> 1.2. <i>Central Reservation System (CRS)</i> 1.3. <i>Global Distribution System (GDS)</i> 1.4. <i>Internet Distribution System (IDS)</i>	operating computerized reservation system	independently operates computerized reservation system	LO 1. Access and manipulate reservation system information 1.1. access and interpret reservation system accurately 1.2. use all system features to access a range of information	TLE_HEFS9OR-If-6
2. Different types of reservations and reservation inquiries and their distribution channels 3. Reservation updates and amendments			LO 2. Create and process reservations 2.1. check the availability of the required booking in accordance with the system functions and requirements 2.2. create new reservations containing accurate customer details and full requirements 2.3. encode all customers' details using the format required by the computer system	TLE_HEFS9OR-Ig-h-7

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCY	CODE
			2.4. Retrieve bookings as required, using the computer system 2.4. make and store accurate updates and amendments to reservations as required 2.4. download and print any required reservation details	
4. Different types of reservations, and reservation inquiries and their distribution channels			LO 3. Send and receive reservation communications 3.1. create and process accurate communications to industry colleagues using the required features of the system 3.2. access and correctly interpret communications from industry colleagues at the appropriate time	TLE_HEFS9OR-Ii-8
5. Evaluation of performance in operating computerized reservation system			LO4. Conduct self-evaluation on the required performance rating 4.1. conduct self-evaluation of the performance in operating computerized reservation system using rubrics	TLE_HEFS9OR-Ij-9

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCY	CODE
Quarter 2 LESSON 3: PROVIDE ACCOMMODATION RECEPTION SERVICES (PR)				
1. Registration: key terms 2. Preregistration 3. Interdepartmental communication	providing accommodation reception services	independently provide accommodation reception services	LO1. Prepare for guest arrival 1.1. prepare reception area for service and check all necessary equipment prior to use 1.2. check and review daily arrival details prior to guest's arrival 1.3. allocate rooms in accordance with guest requirements and establishment policy 1.4. follow up on uncertain arrivals or reservations 1.5. compile and distribute accurate arrival lists to relevant personnel/ departments 1.6. inform colleagues and other departments of special situations or requests in a timely manner	TLE_HEFS9PR-IIa-b-10
4. Guest registration 5. Acceptable methods of payment 6. Foreign exchange 7. Foreign calculation 8. Exchanging foreign currency 9. Revision			LO 2. Welcome and register guests 2.1. welcome guests warmly and courteously 2.2. confirm reservation details with guests 2.3. register guests with or without reservations 2.4. follow correct accounting procedures	TLE_HEFS9PR-IIc-d-11

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCY	CODE
			2.5. explain clearly relevant details such as room key/electronic cards, guest mail, messages, and safety deposit facility arrangements to guests 2.6. follow correct enterprise procedures where rooms are not immediately available or overbooking has occurred 2.7. Monitor guest arrivals and discrepancies between actual and report expected arrivals	
10. Dealing with guest accounts 11. Dockets, invoices, vouchers 12. Post to guest accounts 13. Room count 14. Balancing transactions 15. Departure procedures			LO 3. Generate and check guest accounts for accuracy 3.1. explain and process guest accounts clearly, courteously, and accurately to the guest 3.2. recover and process keys/electronic cards from guests 3.3. act upon the guest's requests for assistance courteously or refer to the appropriate department for follow-up 3.4. process express checkouts 3.5. follow group checkout procedures	TLE_HEFS9PR-IIe-f-12

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCY	CODE
16. Interdepartmental communication 17. Revisions 18. Calculate occupancy 19. Key reports 20. Balancing transactions			LO 4. Prepare front office records and reports 4.1. prepare and update front office records within designated timelines 4.2. follow establishment policies with regard to room changes, no-shows, extensions, and early departures 4.3. distribute reports and records to the appropriate departments within designated timelines	TLE_HEFS9PR-IIg-h-13
21. Evaluation of the performance in providing accommodation reception services			LO5. Conduct self-evaluation on the required performance rating 5.1. Undertake a self-rating of the performance in providing accommodation reception services using rubrics	TLE_HEFS9PR-III-j-14
Quarter 3				
LESSON 1: CONDUCT NIGHT AUDIT (CA)				
1. Process financial transactions 2. The accounting cycle 3. Bank reconciliations 4. Balance revenue	conducting night audit	independently conduct night audit	LO 1. Monitor financial transactions 1.1. check transactions to ensure that they have been carried out in accordance with establishment procedures 1.2. check balances prepared by others to ensure that they are accurate and in accordance with establishment procedures	TLE_HEFS10CA-IIIa-b-15

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCY	CODE
			1.3. identify and resolve financial and system discrepancies according to level of responsibility 1.3. implement financial systems and financial control systems in accordance with establishment procedures 1.3. monitor systems and provide feedback	
5. Organization of records and reports 6. Check guest accounts			LO2. Complete routine records and reports 2.1. complete routine records and reports accurately within designated timelines 2.2. forward reports promptly to the appropriate person/department 2.3. conduct research on successful record keeping	TLE_HEFS10CA-IIIc-16
7. Evaluation of performance in conducting night audit			LO3. Conduct self-evaluation on the required performance rating 3.2 conduct self-evaluation of performance in night audit using rubrics 3.2 Cite case studies on FOS	TLE_HEFS10CA-IIId-17

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCY	CODE
LESSON 2: PROVIDE CLUB RECEPTION SERVICES (CR)				
1. Services of the hospitality industry 2. Products of the hospitality industry 3. Product knowledge and the sales function 4. Effective selling techniques 5. The marketing mix 6. The consumer decision-making process	providing club reception services	independently provides club reception services	LO 1. Provide information on club services and process memberships 1.1. provide accurate advice and information on club services and facilities to customers and club members as required 1.2. explain club membership and club rules to the public and members following standard procedures 1.3. explain and fill up membership application forms clearly and completely 1.4. check and maintain membership records	TLE_HEFS10CR-IIIe-g-18
7. Club and licensing laws in relation to entry requirements for customers and dress regulations 8. Discuss club membership rules, conditions, benefits, and entitlements			LO 2. Monitor entry to club 2.1. check membership badges/cards upon entry 2.2. assist sign-in of guests 2.3. ensure that members and guests comply with dress and age regulations 2.4. refer disputes over entry to club to security, supervisor, or other relevant person	TLE_HEFS10CR-IIIh-i-19
9. Evaluation of performance in providing club reception services			LO3. Conduct self-evaluation on the required performance rating 3.1. conduct self-evaluation of performance in providing club reception services using rubrics	TLE_HEFS10CR-IIIj-20

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCY	CODE
QUARTER 4 LESSON 1: PROVIDE PORTER SERVICES (PS)				
1. Typical hotel/motel procedures for handling group luggage at arrival and departure 2. Process for providing a specified bell desk service 3. Range of services offered by the bell desk in accommodation establishments 4. Process for lifting and carrying heavy luggage	providing porter services	independently provides porter services	LO1. Handle guest arrival and departures 1.1. review and plan expected daily arrivals, departures, and requests for major guest movements 1.2. welcome and direct guests promptly on arrival to the appropriate area for registration 1.3. assist guests with luggage 1.4. escort guests to rooms and show/explain courteously the establishment/room features	TLE_HEFS10PS-IVa-c-21
5. Typical security procedures for luggage storage rooms 6. Issues to consider in planning the pickup of group luggage from rooms 7. Checking guest arrival and departure list			LO 2. Handle guest luggage 2.1. transport and deliver guest luggage safely to the correct location within appropriate timeframes 2.2. operate luggage storage system correctly and in accordance with established procedures and security requirements 2.3. mark and store luggage accurately to allow for easy retrieval following the established procedures 2.4. place luggage correctly within the storage system	TLE_HEFS10PS-IVd-e-22

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCY	CODE
8. Introduction to bell desk 9. Functions of bell desk 10. Bell desk records			LO 3. Respond to request for bell desk services 3.1. provide bell desk services promptly 3.2. coordinate with colleagues and other departments to ensure effective response to bell desk requests	TLE_HEFS10PS-IVf-h-23
11. Evaluation of performance in providing porter services			LO4. Conduct self-evaluation on the required performance 4.1. conduct self-evaluation of performance in providing porter services using rubrics	TLE_HEFS10PS-IVi-j-24

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GLOSSARY**

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CODE BOOK LEGEND**

Sample: TLE_HEFS10PS-IVf-h-23

LEGEND		SAMPLE		DOMAIN/ COMPONENT	CODE
First Entry	Learning Area and Strand/ Subject or Specialization	Technology and Livelihood Education_Home Economics Front Office Services	TLE_HE FS 10	Personal Entrepreneurial Competencies	PECS
	Grade Level	Grade 10		Environment and Market	EM
Uppercase Letter/s	Domain/Content/ Component/ Topic	Provide porter services	PS	Use tools, equipment, and paraphernalia	UT
				Perform Mensuration and Calculation	MC
			-	Practice occupational health and safety procedures	OHS
Roman Numeral <i>*Zero if no specific quarter</i>	Quarter	Fourth Quarter	IV	Interpret design and layout	ID
Lowercase Letter/s <i>*Put a hyphen (-) in between letters to indicate more than a specific week</i>	Week	Week six to eight	f-h	Receive and process reservations	RR
			-	Operate computerized reservation system	OR
Arabic Number	Competency	Respond to request for bell desk services	23	Provide accommodation reception services	PR
				Conduct night audit	CA
				Provide club reception services	CR
				Provide porter services	PS



Handicraft

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
HOME ECONOMICS – HANDICRAFT
Grade 7/8 (Exploratory)**

Course Description:

This curriculum guide is a specialization course which leads to **Handicraft Making**. It covers core competencies that a **grade 7/8** Technology and Livelihood Education (TLE) student ought to possess, namely; produce crochet, quilt, knitted and embroidery projects. 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 on career opportunities.

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
Introduction 1. Basic Concepts in handicraft 2. Relevance of the course 3. Career Opportunities	The learner demonstrates understanding of concepts, principles and theories in handicraft	The learner independently demonstrate core competencies in handicraft	1. Explain core concepts in handicraft 2. Discuss the relevance of the course 3. Explore opportunities for Needle Craft Making as a career	
PERSONAL ENTREPRENEURIAL COMPETENCIES - PECs (PC)				
1. Assessment of Personal Entrepreneurial Competencies and Skills (PECs) vis-à-vis a practicing entrepreneur/employee 1.1. characteristics 1.2. Attributes 1.3. Lifestyle 1.4. Skills 1.5. Traits 2. Analysis of PECs in relation to a practitioner	The learner demonstrates understanding of one's PECs.	The learner recognizes his/her PECs and prepares an activity plan that aligns with that of a practitioner/entrepreneur in Handicraft.	LO 1. Recognize PECs needed in Handicraft. 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 PECs with that of a practitioner /entrepreneur 1.4. Align one's PECs with that of a practitioner/entrepreneur	TLE_PECs7/8-00-1
ENVIRONMENT AND MARKET (EM)				
<ul style="list-style-type: none"> • Key concepts of Environment and Market • Products & services available in the market • Differentiation of products & services • Customers and their buying habits • Competition in the market • SWOT Analysis 	The learner demonstrates understanding of environment and market that relates with a career choice in Handicraft .	The learner independently generates a business idea based on the analysis of environment and market in Handicraft .	LO 1. Generate a business idea that relates with a career choice in Handicraft 1.1 Conduct SWOT analysis 1.2 Identify the different products/services available in the market 1.3 Compare different products/services in computer hardware servicing business 1.4 Determine the profile potential customers 1.5 Determine the profile potential	TLE_EM7/8-00-1

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			competitors 1.6 Generate potential business idea based on the SWOT analysis	
Lesson 1: PRODUCE EMBROIDERED ARTICLE (EA)				
1. History of Embroidery 2. Uses and maintenance of basic tools and materials in embroidery 3. Embroidery stitches	The learner demonstrates understanding on the principles and concepts of embroidery	The learner use basic tools in embroider and create embroidered article.	L.O. 1: Use basic tools in embroidery 1.1 Basic tools and materials in embroidery are identified. 1.2 Different embroidery stitches are performed based on the given steps. 1.3 Proper use of tools is observed	TLE_HEHD7/8EA-0a-b-1
1. Principles of Design 2. Elements of Design 3. Transferring Designs 4. Good working Habits 5. Project plan on embroidery			LO2. Create embroidered article 2.1 Embroidered article is created based on the principles and elements of design. 2.2 Color scheme are applied in creating the design. 2.3 Design is transferred following the given steps. 2.4 Good working habits are observed	TLE_HEHD7/8EA-0c-d-2
Lesson 2: PRODUCE RECYCLED PROJECT (RP)				
1. Overview of recycling 2. Types of Recycling 3. Advantages of recycling 4. Common materials used in recycling	The learner demonstrates understanding on the principles and concepts of recycling	The learner understand and create recycled project.	LO 1. Understand Recycling 1. Recycled articles are identified based on recyclable materials	TLE_HEHD7/8RP-0e-f-2
1. Tools in Recycling 2. Recycled Project from 2.1. Newspaper/magazine 2.2. Soda Can 2.3. Plastic Bottle			LO2. Create Recycled project 2.1 Recycled articles are produced artistically based on the given steps. 2.2 Tools are properly used. 2.3 Good working habits are observed.	TLE_HEHD7/8RP-0e-g-3
Lesson 3: PRODUCE WRAPPED GIFT ITEMS				
1. Materials and tools for Gift Wrapping 2. Philippine Made Materials for Gift Wrapping	The learner demonstrates understanding on the principles and concepts of gift wrapping	The learner understand wrapping of gift items	LO1. Wrap Gift Items 1. Tools are properly used. 2. Principles and elements of design are applied.	TLE_HEHD7/8WG-0h-i-2

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3. Procedure in Gift wrapping 4. Decorative Articles for gift wrapping			3. Gift items are wrapped artistically. 4. Decorative articles are applied to enhanced wrapped gift items. 5. Good working habits are observed.	
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**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
HOME ECONOMICS – HANDICRAFT (NEEDLE CRAFT)**

Grade 9

Course Description:

This curriculum guide on **Handicraft (Needle Craft)** course is designed for a Grade 9 student to develop knowledge, skills, and attitudes to perform the tasks on Needle Craft. It covers core competencies namely: (1) Understand concepts and terms of the different types of Needlecraft; (2) Perform basic and advanced stitches of the different types of Needlecrafts; (3) Develop a project plan; (4) Create marketable and presentable product package for the Needle-crafted articles and (5) Observe proper posture, safety and precautionary measures while working on a Needlecraft project..

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
CONCEPT REVIEW				
PERSONAL ENTREPRENEURIAL COMPETENCIES - PECs (PC)				
1. Dimensions of Personal Entrepreneurial Competencies 1.1. Three Clusters of PECs (Achievement, Planning, Power Clusters) 1.2. Characteristics 2. Assessment of Personal Competencies and Skills (PECs)	The learner comprehends Personal Entrepreneurial Competencies – its dimensions and characteristics.	The learner recommends specific strategies to improve 'weak' areas and sustain 'strong' areas of their PECs.	LO 1. Assess Personal Entrepreneurial Competencies 1.1 Explain dimensions/clusters of PECs and the different characteristic traits per cluster 1.2 Evaluate one's PECs	TLE_PECs9-I0-1
BUSINESS ENVIRONMENT AND MARKET (EM)				
1. Factors included in the Business Environment 2. Spotting and Identifying Business Opportunities	The learner demonstrates understanding of the different factors that influence the business environment	The learner analyzes how factors influence the business environment. The learner relates experience in generating business ideas or identifying business opportunities.	LO 1. Understand the business environment and business ideas 1.1 Explain how different factors influence the business environment 1.2 Explain procedures for generating business ideas or identifying business opportunities 1.3 Generate business ideas and identify business opportunities	TLE_EM9-I0-1
INTRODUCTION TO NEEDLECRAFT				
1. Needlecraft in the Philippines 2. Major Needlecraft Techniques 3. Safety and Precautionary Measures 4. Project Planning 5. Product Packaging 6. Caring for Needlecraft Articles	The learner comprehends concepts related to Needlecraft techniques (Crochet, Embroidery, Quilt, Knitting) The learner describes safety	The learner exhibits appropriate procedure for project planning and execution of techniques The learner displays safety	LO 1. Understand concepts related to needlecraft 1.1 Identify major needlecraft techniques 1.2 State safety and precautionary measures 1.3 Identify parts and descriptions of project plans	

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	and precautionary measures	and precautionary measures during needlecraft projects	1.4 Give examples of tools and materials for packaging 1.5 State ways of caring for needlecraft articles	
QUARTER 1				
LESSON 1: EMBROIDERY				
1. Embroidery: A Brief Background 2. Tools and Materials	The learner demonstrates understanding of concepts and techniques of embroidery.		LO 1. Understand embroidery as a craft and its techniques 1.1 Define embroidery as a needlecraft technique 1.2 Identify the tools and materials used;	TLE_HEHC9PE-Ia-b-2
1. Basic Embroidery Stitches 2. Special Kinds of Embroidery 2.1. Calado 2.2. Smocking 2.3. Cross-stitch 3. Design Transfer Techniques 4. Project Planning 4.1. Costing of tools and materials	The learner identifies varied embroidery stitches.	The learner performs skillfully the use of design, materials, and techniques to create embroidered products. The learner applies the principles of art and handicraft to create a beautiful and marketable embroidered product.	LO 2. Create embroidered products with package 2.1 Manipulate properly the tools and materials for embroidery 2.2 Prepare project plan for the expected embroidery articles 2.3 Combine stitching techniques in embroidery, <i>Calado</i> and smocking to create a well-made project. 2.4 Select appropriate and quality packaging material for embroidered articles 2.5 Evaluate the quality/characteristics of finished product and packaging presentation (use rubrics)	TLE_HEHC9PE-Ic-j-2
QUARTER 2				
LESSON 2: CROCHETING				
1. Crochet 2. Tools and Materials	The learner demonstrates understanding of concepts and techniques in crocheting.		LO 1. Understand Crocheting as a Technique 1.1 Define the technique of crocheting; 1.2 Identify the tools and materials used	TLE_HEHC9PC-IIa-b-1
1. Basic Stitches in Crocheting 1.1. Slip stitch 1.2. Chain stitch 1.3. Single Crochet stitch 1.4. Half-double Crochet stitch 1.5. Double Crochet stitch		The learner performs skillfully the use of design, materials, and techniques to create crocheted products. The learner applies the	LO 2. Make Crocheted products with project plan 2.1 Discuss crochet terms and abbreviations; 2.2 Identify the basic stitches in crocheting; and	TLE_HEHC9PC-IIc-h-2

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<p>1.6. Treble Crochet stitch, etc</p> <p>2. Project Planning 2.1. Costing of tools and materials</p> <p>3. Craft Crocheted products with project plan 3.1. Wrist band 3.2. Cell phone case 3.3. Crocheted belt</p>		<p>principles of art and handicraft to create a beautiful and marketable crocheted product.</p>	<p>2.3 Perform all the basic stitches in crocheting showing proper use of tools and materials.</p> <p>2.4 Prepare project plan for the crochet project</p> <p>2.5 Select appropriate and quality packaging material for embroidered articles</p> <p>2.6 Evaluate the quality/characteristics of finished product and packaging presentation (use rubrics)</p>	
<p>1. Packaging of finished projects/products</p>			<p>LO 3. Package the finished craft</p> <p>3.1 Select appropriate quality packaging material for finished project</p> <p>3.2 Apply creativity in packaging</p> <p>3.3 Evaluate the quality/characteristics of finish product and packaging presentation (use rubrics)</p>	<p>TLE_HEHC9PC-II-i-j-3</p>
<p>QUARTER 3 LESSON 3: KNITTING</p>				
<p>1. History of Knitting</p> <p>2. Classification and uses of tools and materials in knitting</p>	<p>The learner demonstrates understanding of concepts and techniques in knitting.</p>		<p>LO 1. Understand knitting as a needlecraft</p> <p>1.1 Describe definition and characteristics of knitted products</p> <p>1.2 Identify tools and materials for knitting</p>	<p>TLE_HEHC9PK-IIIa-b-4</p>
<p>1. Basic stitches in knitting</p> <p>2. Project Planning</p> <p>3. Costing of tools and materials Knitted product with presentable package</p>		<p>The learner performs skillfully the use of design, materials, and techniques to create knitted products.</p> <p>The learner applies the principles of art and handicraft to create a</p>	<p>LO 2. Produce knitted articles with packaging</p> <p>2.1 Perform basic stitches in knitting</p> <p>2.2 Demonstrate proper use of materials, tools and equipment in knitting</p> <p>2.3 Prepare project plan for the expected knitted articles</p> <p>2.4 Select appropriate quality packaging</p>	<p>TLE_HEHC9PK-IIIc-j-5</p>

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		beautiful and marketable knitted product.	material for knitted articles 2.5 Evaluate the quality/characteristics of finished product and packaging presentation (use rubrics)	
QUARTER 4				
LESSON 4: QUILTING				
1. Quilting: An Overview 2. Materials and tools used in quilting	The learner demonstrates understanding of concepts and techniques in quilting.		LO 1. Understand Quilting as a Technique 1.1 Discuss the overview of Quilting 1.2 Demonstrate proper use of tools and materials in Quilting	TLE_HEHC9PQ-IVa-b-6
1. Kinds of Quilting 2. Project Planning 3. Costing of tools and materials 4. Quilted product with package		The learner performs skillfully the use of design, materials, and techniques to create quilted products. The learner applies the principles of art and handicraft to create a beautiful and marketable quilted product.	LO 2. Make Quilted products with package 2.1 Apply Quilt stitches on selected project 2.2 Prepare project plan for the expected quilted articles 2.3 Select appropriate quality packaging material for finished project 2.4 Evaluate the quality/characteristics of finished product (use rubrics)	TLE_HEHC9PQ-IIc-j-7

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
HOME ECONOMICS – HANDICRAFT (FASHION ACCESSORIES AND PAPER CRAFT)
Grade 10**

Course Description:

This curriculum guide in **Handicraft (Fashion Accessories and Paper Craft)** course is designed for a **Grade 10** student ought to develop knowledge, skills, and attitude to perform the tasks on Fashion Accessories, Paper craft and Recycling. It covers core competencies namely: (1) creating fashion accessories; (2) production of paper craft projects – origami (vases/frames); and (3) production of fashion accessories.

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<p>Introduction</p> <ol style="list-style-type: none"> 1. Core concepts in making Fashion Accessories, Paper Craft and Recycling 2. Relevance of the course 3. Career opportunities 	The learner demonstrates understanding of core concepts and theories in making Fashion Accessories and Paper Craft	The learner independently demonstrates core competencies in making Fashion Accessories and Paper Craft	<ol style="list-style-type: none"> 1. Explain core concepts in making Fashion Accessories, Paper Craft and Recycling 2. Discuss the relevance of the course 3. Explore opportunities for a career in making Fashion Accessories and Paper Craft 	
QUARTER 1				
Lesson 1: CREATE FASHION ACCESSORIES (FA)				
<ol style="list-style-type: none"> 1. History of Fashion Accessory 2. Kinds of Fashion Accessory products/projects: <ol style="list-style-type: none"> 2.1. Earrings 2.2. Necklace 2.3. Ring 2.4. Hand and head bands 2.5. Brooch 2.6. Belts 2.7. Skirt 	The learner demonstrates understanding of concepts, theories and techniques in making Fashion Accessories	The learner independently demonstrates common competencies in making Fashion Accessories.	<p>LO 1: Trace the history & development of fashion accessory production</p> <ol style="list-style-type: none"> 1.1 Discuss history and development of Fashion Accessory 1.2 Analyze relevance of Fashion Accessory products <p>LO 2: Enumerate different kinds of fashion accessory projects / products</p> <ol style="list-style-type: none"> 2.1 Enumerate kinds of fashion accessory projects / products 2.2 Discuss different kinds of fashion accessory projects / products 	<p>TLE_HEHC10FA-Ia-b-1</p> <p>TLE_HEHC10FA-Ic-d-2</p>
<ul style="list-style-type: none"> • Classification of materials, tools and equipment in making fashion accessories 			<p>LO 3: Select materials tools and equipment in making fashion accessories</p> <ol style="list-style-type: none"> 3.1 Identify materials tools and equipment in making fashion accessories. 3.2 Describe each material, tools equipment for making Fashion Accessories. 	TLE_HEHC10FA-Id-3

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<ul style="list-style-type: none"> Use of tools, materials and equipment in fashion accessory projects / products 			<p>LO 4: Use basic tools in fashion accessory</p> <p>4.1 Discuss the functions and uses of each materials, tools and equipment</p> <p>4.2 Demonstrate techniques and procedures in using the tools in making fashion accessory</p>	<p>TLE_HEHC10FA-Id-4</p>
<p>Lesson 2: CALCULATE AND PRODUCE FASHION ACCESSORY MATERIALS (FM)</p>				
<ol style="list-style-type: none"> Cost of materials for fashion accessories Buying fashion accessory 			<p>LO 5: Identify Fashion Accessory cost component</p> <p>5.1 Compute production cost</p> <p>5.2 Purchase fashion accessory materials</p>	<p>TLE_HEHC10FM-Ie-j-5</p>
<p>QUARTER 2</p>				
<p>Lesson 3: PREPARATION AND PRODUCTION OF FASHION ACCESSORIES (PA)</p>				
<ol style="list-style-type: none"> Methods and procedures / techniques in making fashion accessory projects / products <ol style="list-style-type: none"> Cutting Pasting Varnishing 			<p>LO 1: Follow methods and procedures in making fashion accessory</p> <p>1.1 Discuss different methods, techniques and procedures in making Fashion Accessory projects / products</p> <p>1.2 Follow procedures and techniques in making Fashion Accessory projects / products</p> <p>1.3 Demonstrate methods / procedures in making Fashion Accessory projects / products</p>	<p>TLE_HEHC10PA-IIa-e-6</p>

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2. Characteristics of quality fashion accessories			<p>LO 2: Describe quality projects / products of Fashion Accessory</p> <p>2.1 Discuss the different characteristics of a quality fashion accessory projects / products</p> <p>2.2 Explain importance of a quality projects / products of fashion accessory</p> <p>2.3 Formulate criteria for evaluating quality projects / products of fashion accessory</p> <p>2.4 Apply elements of arts and principles of design in fashion accessory projects / products</p> <p>2.5 Select quality supply and materials for fashion accessory</p>	TLE_HEHC10PA-IIf-h-7
3. Packaging and dispatching of finished fashion accessory			<p>LO 3: Prepare packaging of finished Fashion Accessory</p> <p>3.1 Select appropriate quality packaging materials for fashion accessory</p> <p>3.2 Apply creativity in packaging</p> <p>3.3 Arrange projects in packaging</p> <p>3.4 Hands-on packaging</p>	TLE_HEHC10PA-IIi-j-8
4. Evaluation of the finished product			<p>LO 4: Evaluate finished product (Use Rubrics)</p>	TLE_HEHC10PA-II-i-j-9
<p>QUARTER 3 Lesson 4: PERFORM ORIGAMI PRODUCTION - PAPER CRAFT (VASE/FRAMES) (OP)</p>				
1. History of Origami	The learner demonstrates understanding of concepts, theories and techniques in making Origami	The learner independently demonstrates common competencies in making Origami.	<p>LO 1:Trace the history & development of origami, paper mache (vases) production</p> <p>1.1 Discuss history and development of Origami</p> <p>1.2 Analyze relevance of Origami</p>	TLE_HEHC10OP-IIIa-c10

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<p>2. Design and pattern for origami 3. Vases 4. Frames</p>			<p>LO 2: Plan a design and pattern for an origami paper craft (vases/frames) 2.1 Discuss the design to be made 2.2 Sketch the design</p>	<p>TLE_HEHC10OP-IIIId-e-11</p>
<p>5. Materials for making origami (vases/frames) 6. Paper 7. Paste</p>			<p>LO 3: Select materials for making origami 3.1 Identify materials suited for making a origami</p>	<p>TLE_HEHC10OP-IIIf-12</p>
<p>8. Procedures in making origami 9. Folding 10. Cutting 11. Pasting</p>			<p>LO 4: Follow methods and procedures in making origami 4.1 Discuss different methods, techniques and procedures in making origami projects / products 4.2 Follow procedures and techniques in making origami projects / products 4.3 Demonstrate methods / procedures in making origami projects / products</p>	<p>TLE_HEHC10OP-IIIg-13</p>
<p>12. Projects for Origami 13. Vases 14. Frames</p>			<p>LO 5: Produce the following products 5.1 vases 5.2 frames</p>	<p>TLE_HEHC10OP-IIIf-j-14</p>
<p>QUARTER 4: LESSON 5: PERFORM ORIGAMI PRODUCTION – PAPER CRAFT (VASE/FRAMES) (OP)</p>				
<p>15. Characteristics of quality origami Paper craft (Vase/Frames)</p>			<p>LO 6: Describe quality projects and products of origami 6.1 Discuss the different characteristics of a quality origami projects / products 6.2 Explain importance of a quality projects / products of origami 6.3 Formulate criteria for evaluating quality projects / products of origami</p>	<p>TLE_HEHC10OP-IVa-e-15</p>

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			6.4 Apply elements of arts and principles of design in origami projects / products 6.5 Select quality supply and materials for origami	
16. Packaging of finished projects / products			LO 7: Package the finished origami paper craft (vases/frames) 7.1 Select appropriate quality packaging material for fashion accessory 7.2 Apply creativity in packaging 7.3 Arrange projects in packaging 7.4 Hands-on packaging	TLE_HEHC10OP-IVf-j-16
17. Evaluation of the finished product			LO 8: Evaluate finished product (Use Rubrics)	TLE_HEHC10OP-IVf-j-17

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CODE BOOK LEGEND

Sample: TLE_HEHC10OP-IVf-16

LEGEND		SAMPLE	
First Entry	Learning Area and Strand/ Subject or Specialization	Technology and Livelihood Education_Home Economics Handicraft	TLE_HE HC 10
	Grade Level	Grade 10	
Uppercase Letter/s	Domain/Content/ Component/ Topic	Perform Origami Production - Paper Craft	OP
			-
Roman Numeral <i>*Zero if no specific quarter</i>	Quarter	Fourth Quarter	IV
Lowercase Letter/s <i>*Put a hyphen (-) in between letters to indicate more than a specific week</i>	Week	Week six	f
			-
Arabic Number	Competency	Package the finished origami paper craft (vases/frames)	16

DOMAIN/ COMPONENT	CODE
Personal Entrepreneurial Competencies	PECS
Environment And Market	EM
Produce Embroidered Article	EA
Produce Recycled Project	RP
Produce Wrapped Gift Items	WG
Embroidery	PE
Crocheting	PC
Knitting	PK
Quilting	PQ
Create Fashion Accessories	FA
Calculate And Produce Fashion Accessory Materials	FM
Preparation And Production Of Fashion Accessories	PA
Perform Origami Production - Paper Craft (Vase/Frames)	OP



Household Services

**Kto12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
HOME ECONOMICS – HOUSEHOLD SERVICES (HS)
Grade 7/8 (Exploratory)**

Course Description:

This is an exploratory and introductory course that leads to **Household Services** National Certificate Level II (NC II). It covers **six** common competencies that a **Grade 7/Grade 8** Technology and Livelihood Education (TLE) student ought to possess, namely: 1) using and maintaining tools, equipment, and paraphernalia; 2) performing mensuration and calculation; 3) interpreting diagrams layouts and plans; 4) practicing Occupational Health and Safety; 5) participating in workplace communication; and 6) working in a team environment. The preliminaries of this exploratory course include the following: 1) discussion of 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 1. Basic concepts in Household Services (HS) 2. Relevance of the course 3. Career opportunities	The learners demonstrate an understanding of basic concepts and theories in HS	The learners independently demonstrate common competencies in HS as prescribed in the TESDA Training Regulation	<i>The learners:</i> 1. explain basic concepts in HS 2. discuss the relevance of the course 3. explore career opportunities for HS	
PERSONAL ENTREPRENEURIAL COMPETENCIES - PECs (PC)				
1. Assessment of Personal Entrepreneurial Competencies and Skills (PECs) vis-à-vis a practicing entrepreneur/employee 1.1. Characteristics 1.2. Attributes 1.3. Lifestyle 1.4. Skills 1.5. Traits 2. Analysis of PECs in relation to a practitioner	The learners demonstrate an understanding of one's PECS	The learners recognize his/her PECs and prepare an activity plan that aligns with that of an HS practitioner/entrepreneur	LO 1. Recognize PECs needed in Household Services. 1.1. assess one's PECs: characteristics, attributes, lifestyle, skills, traits 1.2. assess practitioner's PECS: characteristics, attributes, lifestyle, skills, traits 1.3. compare one's PECS with those of a practitioner /entrepreneur 1.4. align one's PECS with those of a practitioner/entrepreneur	TLE_7/8PECS-00-1
ENVIRONMENT AND MARKET (EM)				
1. Key concepts of Environment and Market 2. Products and services available in the market 3. Differentiation of products and services	The learners demonstrate an understanding of environment and market in relation to a career choice in HS	The learners independently generate a business idea based on the analysis of environment and market in HS	LO 1. Generate a business idea that relates with a career choice in Household Services 1.1. conduct SWOT analysis 1.2. identify the different products/services	TLE_7/8EM-00-1

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
4. Customers and their buying habits 5. Competition in the market 6. SWOT analysis			available in the market 1.3. compare different products/services in computer hardware servicing business 1.4. profile potential customers 1.5. profile potential competitors 1.6. generate potential business idea based on the SWOT analysis	
LESSON 1:USE AND MAINTAIN CLEANING MATERIALS, TOOLS, AND EQUIPMENT (UT)				
1. Types and uses of cleaning tools, equipment, supplies, and materials	The learners demonstrate an understanding of the use and maintenance of cleaning tools and equipment in HS	The learners independently use and maintain cleaning tools and equipment in HS according to standard procedures	LO 1. Use appropriate cleaning tools, equipment, supplies, and materials 1.1 use appropriate cleaning tools and equipment properly 1.2 prepare appropriate supplies and materials for cleaning 1.3 follow instructions in handling different cleaning tools, equipment, and supplies 1.4 observe safety measures/precautions in cleaning tools	TLE_HEHS7/8UT-0a-1 EASE TLE_HE

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
2. Maintenance and storage of cleaning tools and equipment 3. Types of chemicals for cleaning and sanitizing tools and equipment			LO 2. Maintain cleaning equipment 2.1 maintain and store cleaning materials, tools, and equipment safely in designated positions and areas 2.2 sanitize cleaning tools and equipment according to manufacturer's instructions	TLE_HEHS7/8UT-0a-2 EASE TLE_HE
LESSON 2: PERFORM MENSURATION AND CALCULATION (MC)				
1. Conversion of weight, time, temperature, and space measurements 2. Ratio and proportion 3. Substitution of ingredients or chemical solutions 4. Computation of work schedules or housekeeping bill	The learners demonstrate an understanding of performing mensuration and calculation applied to HS	The learners independently perform mensuration and calculation applied to HS	LO 1. Carry out measurements and calculations of required tasks 1.1 convert systems of measurement according to task requirement 1.2 perform ratio and proportion based on the required task 1.3 substitute ingredients or chemical solutions according to recipe/task requirement 1.4 compute work schedules or housekeeping bill based on policy	TLE_HEHS7/8MC-0a-1
LESSON 3. INTERPRET DIAGRAMS, LAYOUTS, AND PLANS (ID)				
1. Alphabet of lines 2. Architectural symbols 3. Diagrams and layouts	The learners demonstrate an understanding of diagrams, layouts, and plans relative to HS	The learners interpret diagrams, layouts, and plans relative to HS	LO 1. Read and interpret diagrams, layouts and plans 1.1 read and interpret architectural symbols, diagrams, and layouts 1.2 determine parts and functions	TLE_HEHS7/8ID-0b-4

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			of cleaning equipment and room layout	
LESSON 4: PRACTICE OCCUPATIONAL HEALTH AND SAFETY PROCEDURES (OS)				
1. Safety regulations 1.1. Clean Air Act 1.2. Building Code 1.3. National Electrical and Fire Safety Codes 1.4. Ph OSHS	The learners demonstrate an understanding of compliance with regulatory and organizational requirements for occupational health and safety in HS	The learners independently complies with the regulatory and organizational requirements for occupational health and safety in HS	LO 1. Identify hazards and risks in the workplace 1.1 explain the safety regulations and safety hazard control practices and procedures applied to HS	TLE_HEHS7/8OS-0c-d-5
2. Types of Hazard/Risk 2.1. Physical 2.2. Biological 2.3. Chemical 3. Ergonomics 3.1. Psychological factors 3.2. Physiological factors 4. Contingency Measures 4.1. Evacuation 4.2. Isolation 4.3. Decontamination			LO 2. Evaluate hazards and risks 2.1 classify the types of hazard/risk according to physical, biological, and chemical 2.2 describe the effects of ergonomics in the workplace 2.3 perform basic contingency measures such as evacuation, isolation, or decontamination drills	TLE_HEHS7/8OS-0e-f-6
5. Occupational Health and Safety (OSHS) Procedures 6. Workplace Emergencies 7. Personal Protective Equipment (PPE) 7.1. Mask 7.2. Gloves 7.3. Goggles 7.4. Apron 7.5. Hairnet			LO 3. Control hazards and risks 3.1 explain occupational health and safety procedures and emergencies in the workplace 3.2 use PPE correctly in accordance with OHS procedures and practices	TLE_HEHS7/8OS-0e-f-7

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
8. Emergency-related drills and training 8.1. Fire drill 8.2. Earthquake drill 8.3. Basic life support/CPR 8.4. First Aid 8.5. Spillage control 8.6. Disaster preparedness 9. Occupational Health and Safety Personal Records 9.1. Medical/Health records 9.2. Incident reports 9.3. Accident reports			LO 4. Maintain OHS awareness 4.1 conduct emergency-related drills and trainings 4.2 analyze the different OHS personal records	TLE_HEHS7/8OS-Oe-f-8
LESSON 5: PARTICIPATE IN WORKPLACE COMMUNICATION (PW)				
1. Concepts of Communication 1.1 Communication process 1.2 Barriers to communication 1.3 Verbal and Nonverbal communication 2. Sources of Information 3. Medium used in transferring information and ideas 4. Storing, filing and managing of information and forms 5. Workplace interactions and protocols	The learners demonstrate an understanding of the importance of obtaining and conveying information in the workplace	The learners independently obtains and conveys information in household services according to standard procedures	LO 1. Obtain and convey workplace information 1.1 explain the concepts of communication and its process 1.2 apply ways to generate information 1.3 identify the different media used in disseminating information and ideas 1.4 perform the procedures in storing, filing, and managing information and forms 1.5 observe workplace interactions and protocols	TLE_HEHS7/8PW-0g-j-9

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			based on organization and industry standards	
6. In- and off-house policy management 7. Conducting a meeting			LO 2. Participate in workplace meetings and discussions 2.1 explain in- and off-house policy management 2.2 simulate workplace meetings and discussion	TLE_HEHS7/8PW-0g-h-10
8. Basic documents and forms used in the front office/desk 9. Records managements 10. Basic mathematical processes			LO 3. Complete relevant work related documents 3.1 identify and accomplish basic documents and forms used in HS 3.2 perform effective record management and mathematical process	TLE_HEHS7/8PW-0g-h-11
LESSON 6: WORK IN TEAM ENVIRONMENT (WT)				
1. Basic concepts of team and team building 1.1 Role and objective of the team 1.2 Standard operating and/or other workplace procedures 1.3 Team structure 2. Inter- and intra-personal relationship with guests and colleagues	The learners demonstrate an understanding of working as a member of a team	The learners independently works as member of a team	LO 1. Describe team role and scope 1.1 explain the basic concepts of team and team building 1.2 including its role and objective 1.3 perform one’s role, objective, and workplace procedure as a	TLE_HEHS7/8WT-i-j-12

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			member of a team 1.4 practice inter- and intra-personal relationship among guests and colleagues	
3. Workplace context 3.1 Conditions of work environments 3.2 Employer-employee relationships and work agreements 3.3 Safety, environmental, housekeeping, and quality guidelines			LO 2. Work as a team member 2.1 explain the conditions of work environment 2.2 practice safety, good housekeeping, and quality guidelines in the workplace	TLE_HEHS7/8WT-0i-j-13

**HOME ECONOMICS – HOUSEHOLD SERVICES (HS)
GRADE 9 (Specialization)**

Course Description:

This curriculum guide for **Household Services (HS)** leads to National Certificate Level II (NCII). This course is designed for a **Grade 9** student who ought to develop the knowledge, skills, and attitudes related to the performance of HS. It covers core competencies, namely: 1) cleaning the living room, dining room, bedrooms, toilet, and kitchen; and 2) washing and ironing clothes, linen, and fabric.

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
Introduction 1. Core concepts in Household Services (HS) 2. Relevance of the course 3. Career opportunities	The learners demonstrate an understanding of core concepts and principles in HS	The learners independently demonstrate competencies in HS as prescribed in the TESDA Training Regulation	The learners: 1. explain core concepts in Household Services 2. discuss the relevance of the course 3. explore opportunities for a career in HS	
CONCEPT REVIEW				

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
PERSONAL ENTREPRENEURIAL COMPETENCIES - PECs (PC)				
1. Dimensions of Personal Entrepreneurial Competencies (PECs) 1.1 Three Clusters of PECs (Achievement, Planning, Power Clusters) 1.2 Characteristics 2. Assessment of Personal Competencies and Skills (PECs)	The learners demonstrate an understanding of PECs' dimensions and characteristics	The learners recommend specific strategies to improve 'weak' areas and sustain 'strong' areas of their PECs.	LO 1. Assess Personal Entrepreneurial Competencies 1.1 explain dimensions/clusters of PECs and the different characteristic traits per cluster 1.2 evaluate one's PECs	TLE_9PECS-I0-1
ENVIRONMENT AND MARKET (EM)				
1. Factors in the business environment 2. Identifying business opportunities	The learners demonstrate an understanding of the different factors that influence the business environment	The learners: 1. analyze how factors influence the business environment 2. relate experience in generating business ideas or identifying business opportunities	LO 2. Understand the business environment and business ideas 2.1 explain how different factors influence the business environment 2.2 explain procedures for generating business ideas or identifying business opportunities 2.3 generate business ideas and identify business opportunities	TLE_9EM-I0-1
QUARTER 1				
LESSON 1: CLEAN LIVING ROOM, DINING ROOM, BEDROOMS, BATHROOM AND KITCHEN (CK)				
1. Types of floor and surface texture 1.1 Hard floors 1.2 Soft floors 2. Procedures and techniques in floor and surface cleaning 3. Floor care and maintenance	The learners demonstrate an understanding of procedures and techniques in cleaning, caring for, and maintaining floors, surfaces, furnishings, and fixtures	The learners independently clean floors, surfaces, furnishings, and fixtures according to standard operating procedure	LO 1. Clean surfaces and floors 1.1 explain the types of floor and surface texture 1.2 perform cleaning, sweeping, and polishing techniques per standard operating procedure 1.3 demonstrate floor care and maintenance procedures in accordance with relevant safety procedures and manufacturer's instructions	TLE_HEHS9CK-Ia-e-1
4. Types of furniture 5. Care and maintenance of furniture 6. Types of stain 7. Procedures and techniques in removing stains on			LO 2. Clean furnishings and fixtures 2.1 identify the different types of furniture 2.2 list proper care and maintenance of furniture 2.3 identify the different types of	TLE_HEHS9CK-If-j-2

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
furniture			stain 2.4 perform safety procedures and techniques in removing stains on furniture per standard operating procedure	
QUARTER 2				
Make beds and cots 1. Types of linen 2. How to make beds and cots 3. Proper cleaning and maintenance of beds and cots	The learners demonstrate an understanding of the procedures and techniques in making beds and cots	The learners independently makes\ up beds and cots according to standard procedure.	LO 3. Make up beds and cots 3.1 classify linens according to types and functions 3.2 make beds and cots per standard operating procedure 3.3 demonstrate proper cleaning of beds and cots	TLE_HEHS9CK-IIa-c-3
Clean toilet and bathroom 1. Procedures and techniques in cleaning bathroom and toilet accessories 2. Types of bathroom supplies 3. Maintenance and storage of bathroom cleaning tools and materials 4. Concepts of sanitation and sanitizer 5. Waste disposal	The learners demonstrate an understanding of the procedures and techniques in cleaning, and sanitizing toilet and bathroom	The learners independently clean and sanitizes toilet and bathroom according to standard operating procedure	LO 4. Clean bathroom 4.1 demonstrate cleaning of toilet and bathroom accessories according to prescribed procedures 4.2 classify bathroom supplies according to types and functions 4.3 perform maintenance and storage of cleaning tools and supplies according to prescribed procedures 4.4 explain the concepts of sanitation and sanitizers 4.5 perform waste disposal and management	TLE_HEHS9CK-IIId-h-4
Cleaning the kitchen 1. Types of kitchen appliance and fixture 2. Cleaning, care, and maintenance of kitchen appliances and fixtures	The learners demonstrate an understanding of the procedures and techniques in cleaning a kitchen	The learners independently clean the kitchen according to standard operating procedure	LO 5. Clean kitchen 5.1 explain the types of kitchen appliances and fixtures 5.2 perform cleaning, care, and maintenance of kitchen appliances and fixtures in accordance with relevant safety procedures	TLE_HEHS9CK-IIi-j-5
QUARTER 3				
LESSON 2: WASH CLOTHES, LINEN, AND FABRIC (WI)				
1. Types of fabric 2. Repairing defective clothing,	The learners demonstrate an understanding of the	The learners independently wash clothes, linens, and fabrics	LO 1. Check and sort clothes, linens, and fabrics	TLE_HEHS9WI-IIi-a-j-6

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
linen, and fabrics	procedures and techniques in washing clothes, linens, and fabrics	according to standard operating procedure	1.1 identify the different types, characteristics, uses, and proper care of fibers and fabrics 1.2 demonstrate repairing and sewing defective clothing, linen, and fabric based on prescribed procedures	
3. Types of fabric stains and removal technique			LO 2. Remove stains 2.1 explain the types of fabric stains 2.2 demonstrate fabric-stain removal and treatment according to prescribed procedures	TLE_HEHS9WI-IIIa-j-7
4. Laundry supplies and equipment			LO 3. Prepare washing equipment and supplies 3.1 check and prepare laundry supplies and equipment according to standard operating procedure	TLE_HEHS9WI-IIIa-j-8
5. Step-by-step procedure in performing laundry			LO 4. Perform laundry 4.1 perform a laundry job in accordance with standard operating procedures	TLE_HEHS9WI-IIIa-j-9
QUARTER 4 IRONING CLOTHES, LINENS, AND FABRICS (IC)				
1. Supplies, materials, and equipment needed in ironing clothes, linen, and fabrics 2. Ironing clothes, linens, and fabrics 3. Steps/procedure in ironing clothes, linens and fabrics	The learners demonstrate an understanding of the procedures and techniques in ironing clothes, linens, and fabrics	The learners independently iron clothes, linens, and fabrics according to standard operating procedure	LO 5. Iron clothes, linens, and fabrics 5.1 enumerate different supplies, materials, and equipment needed in ironing clothes, linen, and fabrics 5.2 check and prepare ironing supplies and equipment according to standard operating procedures 5.3 perform an ironing job in accordance with standard operating procedure	TLE_HEHS9IC-IVa-j-11

**Kto12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

**HOME ECONOMICS – HOUSEHOLD SERVICES (HS)
Grade 10 (Specialization)**

Course Description:

This curriculum guide on **Household Services (HS)** leads to National Certificate Level II (NCII). This course is designed for a **Grade 10** student who ought to develop the knowledge, skills, and attitudes related to HS tasks. It covers two core competencies, namely: 1) preparing hot and cold meals/food, and 2) providing food and beverage service.

Prerequisite: Grade 9 Household Services

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
Introduction 1. Core concepts in Household Services (HS) 2. Relevance of the course 3. Career opportunities	<i>The learners demonstrate an understanding of:</i> core concepts and principles in HS	The learners independently demonstrate competencies in HS as prescribed in the TESDA Training Regulation	<i>The learners:</i> a. explain core HS concepts b. discuss the relevance of the course c. explore career opportunities for HS	
PERSONAL ENTREPRENEURIAL COMPETENCIES - PECs (PC)				
1. Assessment of Personal	The learners demonstrate an	The learners independently	LO 1. Develop and strengthen	TLE_10PECS-I0-1

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
Competencies and Skills (PECs) vis-à-vis a practicing entrepreneur in the locality 1.1 Characteristics 1.2 Traits 1.3 Lifestyle 1.4 Skills 2. Analysis of PECs in relation to a practitioner 3. Application of PECs to the chosen business/career	understanding of one's PECs in HS	create a plan of action that develops/strengthens one's PECs in HS	PECs needed in Household Services 1.1 identify areas of improvement, development, and growth 1.2 use one's PECs toward a business or career choice 1.3 create an action plan to ensure success in the business or career choice	
ENVIRONMENT AND MARKET (EM)				
1. Product development 2. Key concepts in developing a product 3. Finding value for the product 4. Innovation 5. Unique Selling Proposition (USP)	The learners demonstrate an understanding of the environment and market for HS in one's locality	The learners independently create a business vicinity map that reflects the potential of an HS market in the locality	LO 1. Develop an HS product/service 1.1 explain what makes a product unique and competitive 1.2 identify what is of "value" to the customer 1.3 apply creativity and Innovative techniques to develop a marketable product 1.4 ensure that the product/service has a USP	TLE_10EM-I0-1
1. Selecting business idea 2. Key concepts of selecting a business idea 2.1 Criteria 2.2 Techniques			LO 2. Select a business idea 2.1 enumerate various criteria and steps in selecting a business idea 2.2 analyze a business idea based on the criteria/techniques set 2.3 apply the criteria/steps in selecting a viable business idea	TLE_10EM-I0-2
1. Branding			LO 3. Develop a brand for the product 3.1 identify the benefits of having a good brand 3.2 enumerate the criteria in	TLE_10EM-I0-3

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			developing a brand 3.3 create a unique product brand	
QUARTERS 1 AND 2 LESSON 1: PREPARE HOT AND COLD MEALS/FOOD (HC)				
1. Purchasing 1.1 Effective purchasing steps and procedures 1.2 Determining food quantity and the right food prices 2. Dish and ingredients preparation 2.1 Food safety handling 2.2 Using recipes correctly 2.3 Standardizing and quantifying recipes 2.4 Important temperatures in food preparation	The learners demonstrate an understanding of the concepts, principles, and techniques in preparing and cooking hot and cold meals	The learners independently prepare and cook quality hot and cold meals according to recipe	LO 1. Prepare ingredients according to recipe 1.1 explain the characteristics of effective purchasing steps and procedures 1.2 determine the food quantity with the right price of goods 1.3 develop skills in purchasing goods and products 1.4 demonstrate safety handling procedures 1.5 show correct and proper use of recipe 1.6 standardize and quantify recipes 1.7 list important temperatures in food preparation	TLE_HEHS10HC-Ia-b-1
1. Basic Cooking Techniques and Procedures 1.1 Moist-heat preparation 1.2 Dry-heat preparation 1.3 Combination method			LO 2. Cook meals and dishes according to recipe 2.1 explain different basic cooking techniques and their procedures 2.2 identify some samples of food using basic cooking techniques and their procedures	TLE_HEHS10HC-Ic-d-2
1. Dining room operations and procedures 2. Dining room equipment 3. <i>Mise en place</i> techniques 4. Types of dishes 4.1. Soups 4.2. Vegetable dishes 4.3. Meat and poultry dishes			LO 3. Present cooked dishes 3.1 provide basic principles of dining room operations and procedures 3.2 demonstrate use of dining room equipment 3.3 demonstrate proper <i>mise en place</i> techniques	TLE_HEHS10HC-Ie-i-3

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<ul style="list-style-type: none"> 4.4. Fish and seafood dishes 4.5. Egg dishes 4.6. Pasta grain and farinaceous dishes 5. Food serving <ul style="list-style-type: none"> 5.1. Types of meal service 5.2. Serving etiquette 			<ul style="list-style-type: none"> 3.4 enumerate the different types of dishes according to their recipes 3.5 demonstrate serving of quality cooked vegetable, poultry, and seafood dishes according to recipe 3.6 serve cooked meat dishes with different culinary methods 3.7 serve pasta grain and farinaceous dishes per standard operating procedure 3.8 enumerate and explain types of meal service 3.9 demonstrate etiquette in serving food 	
<ul style="list-style-type: none"> 1. Tools, materials, and recipes in preparing: <ul style="list-style-type: none"> 1.1. Sauces 1.2. Dressings and garnishes 2. Seasoning principles in sauce preparation 3. Sauce preparation techniques <ul style="list-style-type: none"> 3.1. Deglazing 3.2. Reduction 3.3. Starch thickness 3.4. Starch less thickness 4. Sauces varieties <ul style="list-style-type: none"> 4.1. Bechamel 4.2. Espangole 4.3. Hollandaise 4.4. Tomato 4.5. Velote 5. Dressing <ul style="list-style-type: none"> 5.1. Kinds of dressing and their ingredients 			<p>LO 4. Prepare sauces, dressings and garnishes</p> <ul style="list-style-type: none"> 4.1 identify tools, materials, and recipes in preparing sauces, dressings, and garnishes 4.2 explain seasoning principles in sauce preparation 4.3 apply techniques in sauce preparation 4.4 prepare five "mother sauces" and their variations 4.5 utilize proper ingredients in preparing dressing for a recipe 4.6 correctly prepare kinds of dressing for certain recipes 	<p>TLE_HEHS10HC-I.IIi-j-4</p>
<ul style="list-style-type: none"> 1. Tools and materials used in preparing 			<p>LO 5. Prepare appetizers</p>	<p>TLE_HEHS10HC-</p>

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
appetizers 2. Some commonly served kinds of appetizers 2.1. hors d'oeuvres 2.2. canapés 2.3. finger foods			5.1 identify the commonly used tools and materials in preparing appetizers 5.2 produce some basic appetizers based on clients' need in accordance with procedures	I Ib-c-5
1. Commonly served desserts for occasions 1.1. Sherbet, ice, and ice cream 1.2. Fruit desserts 1.3. Bread and pastry 1.4. Mousse 1.5. Cold and molded salads 2. Salads 2.1. Salad component 2.2. Classification of salad			LO 6. Prepare desserts and salads 6.1 use appropriate tools, materials, and equipment in preparing desserts per standard operating procedure 6.2 prepare sherbets, ices, and ice cream following respective procedures 6.3 present fruit and pastry desserts per procedure 6.4 prepare cold and molded salads per procedure	TLE_HEHS10HC-I Id-e-6
1. Sandwiches 1.1 Hot sandwiches 1.2 Cold dressings 1.3 Hot and cold sauces			LO 7. Prepare sandwiches 7.1 prepare hot sandwiches and its cold dressings accordingly 7.2 make hot and cold sauces following standard procedure	TLE_HEHS10HC-I If-g-7
1. Excess and unconsumed foods and ingredients 1.1 Step-by-step procedures 1.2 Storing of dry and wet foods 1.3 Packing and wrapping procedures	The learners demonstrate an understanding of procedures and techniques in serving hot and cold meals, and storing excess and unconsumed foods and ingredients properly	The learners independently prepare and serve cooked hot and cold meals according to standard procedure, and store excess and unconsumed foods and ingredients accordingly	LO 8. Store excess foods and ingredients 8.1 follow proper procedures in storing excess ingredients and unconsumed cooked food 8.2 follow proper storage of dry and wet food/ingredients in accordance with standard procedure. 8.3 convert unconsumed cooked food into a new dish 8.4 demonstrate how to pack /wrap food in proper	TLE_HEHS10HC-I Ih-j8

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			procedures	
QUARTERS 3 & 4				
LESSON 2: PROVIDE FOOD AND BEVERAGE SERVICE				
1. Dining Area 1.1 Furniture setup 1.2 Tables and table settings 1.3 Dining equipment as per standard operating procedure	The learners demonstrate an understanding of the knowledge, skills, and attitudes required in the food and beverage service	The learners independently provide food and beverage service according to standard procedure	LO 1. Prepare Dining Area 1.1 show furniture setup correctly following standard 1.2 demonstrate table and table settings correctly 1.3 properly use dining equipment per standard procedure	TLE_HEHS10HC-IIIa-e-9
1. Dining Area 1.1 Tablecloth 1.2 Table appointments 1.3 Napkin folding 1.4 Table centerpiece 2. How to set up table			LO 2. Set up Table 2.1 lay out different types of tablecloth 2.2 set up table appointments according to standards 2.3 demonstrate basic napkin folding 2.4 design a creative table centerpiece	TLE_HE HS10HC-III f-j -10
1. Table service procedures and techniques 2. Rules to observe in table service 2.1 Order of service 2.2 Loading trays 2.3 Beverage 2.4 Serving with garnishing 2.5 Refilling water 3. Washing and handling fresh fruits	The learners demonstrate an understanding of the knowledge, skills, and attitudes required in serving and clearing in the food and beverage service	The learners independently serve and clear the food and beverage in the table	LO 3. Serve food and beverage 3.1 demonstrate correct table service procedures and techniques 3.2 describe the procedure for serving food at the table 3.3 have a working knowledge of the rules in table service with regard to order of service, loading trays, and clearing dishes 3.4 serve beverage with garnishing in accordance with standard procedure	TLE_HEHS10HC-IVa-h-11
1. Clearing the table 2. Cleaning the table and changing used ashtrays			LO 4. Clear the table 4.1 have a working knowledge of rules and regulations in	TLE_HEHS10HC-IVi-j-12

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
3. Table manners and etiquette			clearing the table 4.2 demonstrate clearing of table following standard procedure 4.3 perform cleaning the table and changing used ashtrays 4.4 observe table manners and etiquette	

HOME ECONOMICS – HOUSEHOLD SERVICES (HS)

GLOSSARY

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HOME ECONOMICS – HOUSEHOLD SERVICES (HS)

**Code Book Legend
Sample: TLE_HEHS10HC-IIb-c-5**

LEGEND		SAMPLE		DOMAIN/ COMPONENT	CODE
First Entry	Learning Area and Strand/ Subject or Specialization	Technology and Livelihood Education_Home Economics Household Services	TLE_HE HS 10	Personal Entrepreneurial Competencies	PC
	Grade Level	Grade 10		Environment And Market	EM
Uppercase Letter/s	Domain/Content/ Component/ Topic	Prepare Hot And Cold Meals/Food	HC	Use And Maintain Cleaning Materials, Tools, And Equipment	UT
				Perform Mensuration And Calculation	MC
				Interpret Diagrams, Layouts, and Plans	Page 18 of 19
				Practice Occupational Health and Safety Procedures	OS

**Kto12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**



Dressmaking

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
HOME ECONOMICS -- DRESSMAKING
Grade 7/8 (Exploratory)**

Course Description:

This is an exploratory and introductory course which leads to **Dressmaking /Tailoring** National Certificate Level II (NC II). It covers **five** common competencies that a **Grade7/Grade 8** Technology and Livelihood Education (TLE) student ought to possess, namely: 1) using tools, equipment and paraphernalia; 2) performing mensuration and calculation; 3) practicing Occupational Health and Safety (OHS) procedures; 4) maintaining tools, equipment and paraphernalia and; 5) reading and interpreting drawing designs. The preliminaries of this exploratory course include the following: 1) discussion on the relevance of the course; 2) explanation of key concepts relative to the course and; 3) exploration on career opportunities.

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<p>Introduction</p> <ol style="list-style-type: none"> Basic concepts in Dressmaking/Tailoring Relevance of the course Career opportunities 	The learner demonstrates understanding of basic concepts and underlying theories in dressmaking/tailoring.	The learner independently demonstrates common competencies in dressmaking/tailoring as prescribed in the TESDA Training Regulation.	<ol style="list-style-type: none"> Explain basic concepts in dressmaking/tailoring Discuss the relevance of the course Explore on opportunities for dressmaking/tailoring as a career 	
PERSONAL ENTREPRENEURIAL COMPETENCIES - PECs (PC)				
<ol style="list-style-type: none"> Assessment of Personal Entrepreneurial Competencies and Skills (PECs) vis-à-vis a practicing entrepreneur/employee <ol style="list-style-type: none"> Characteristics Attributes Lifestyle Skills Traits Analysis of PECs in relation to a practitioner 	The learner demonstrates understanding of one's PECs.	The learner recognizes his/her PECs and prepares an activity plan that aligns with that of a practitioner/entrepreneur in Dressmaking.	<p>LO 1. Recognize PECs needed in Dressmaking.</p> <ol style="list-style-type: none"> Assess one's PECs: characteristics, attributes, lifestyle, skills, traits Assess practitioner's: characteristics, attributes, lifestyle, skills, traits Compare one's PECs with that of a practitioner /entrepreneur Align one's PECs with that of a practitioner/entrepreneur 	TLE_HEDM7/8PC-00-1
ENVIRONMENT AND MARKET (EM)				
<ol style="list-style-type: none"> Key concepts of environment and market Products and services available in the market Differentiation of products and services Customers and their buying habits Competition in the market SWOT Analysis 	The learner demonstrates understanding of environment and market that relates with a career choice in Dressmaking	The learner independently generates a business idea based on the analysis of environment and market in Dressmaking.	<p>LO 1. Generate a business idea that relates with a career choice in Dressmaking.</p> <ol style="list-style-type: none"> Conduct SWOT analysis Identify the different products/services available in the market Compare different products/services in computer hardware servicing business Determine the profile potential 	TLE_HEDM7/8EM-00-1

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			customers 1.5. Determine the profile potential competitors 1.6. Generate potential business idea based on the SWOT analysis	
LESSON 1:USE OF SEWING TOOLS (UT)				
1. Sewing tools and equipment 2. Types and uses of sewing machines	The learner demonstrates understanding in the use of sewing tools in dressmaking/tailoring.	The learner independently uses tools in dressmaking/tailoring.	LO 1. Identify sewing tools and equipment and their uses 1.1. Identify sewing tools and equipment 1.2. Classify sewing machines 1.3. Describe uses of sewing tools	TLE_HEDM7/8UT-0a-b-1
LESSON 2: CARRY OUT MEASUREMENTS AND CALCULATIONS (MT)				
1. Body measurements in ladies and men's apparel	The learner demonstrates understanding in carrying out measurements in dressmaking/tailoring.	The learner independently carries out measurements and calculations based on job requirements.	LO 1. Obtain measurements 1.1. Select appropriate measuring tools 1.2. Take accurate body measurements 1.3. Read and record required measurements	TLE_HEDM7/8MT-0c-d-2
2. Metric conversion chart			LO 2. Perform simple calculations 2.1 Apply the systems of measurements 2.2 Perform simple calculations based on the job requirement 2.3 Demonstrates accurate reading measurements	TLE_HEDM7/8MT-0e-3
3. Estimate appropriate quantities			LO 3. Estimate appropriate quantities 3.1 Practice the fundamentals of arithmetic operations 3.2 Estimate cost of project materials	TLE_HEDM7/8MT-0f-4
LESSON 3. READ AND INTERPRET PRODUCT DESIGNS (ID)				

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
1. Appropriateness of design according to: 1.1. Age 1.2. Customer's Preference 1.3. Body Physique 2. Principles of Design 3. Color Theory 4. Basic Hand Stitches	The learner demonstrates understanding in reading and interpreting product designs and specifications in dressmaking/tailoring.	The learner independently reads and interprets product designs in dressmaking/tailoring.	LO 1. Read and interpret specifications of product design 1.1. Assess the appropriateness of design based on the client's features 1.2. Read specifications 1.3. Apply the principles of design and color harmonies	TLE_HEDM7/8ID-0g-5
LESSON 4. PERFORM BASIC MAINTENANCE (BM)				
1. Machine Operation 1.1. Lower and Upper Threading of Sewing Machine 1.2. Common Sewing Machine Troubles and its Remedies 1.3. Quality Stitches and Tensions 2. Troubles and remedies of sewing machine	The learner demonstrates understanding in performing basic maintenance of sewing machine in dressmaking/tailoring.	The learner consistently performs basic maintenance of sewing machine in dressmaking/tailoring.	LO 1. Operate machine and assess its performance 1.1. Observe proper handling and cleaning of the machine 1.2. Identify correct procedures in machine operation 1.3. Resolve common machine troubles	TLE_HEDM7/8BM-0h-6
3. Care of Sewing Machine			LO 2. Clean and lubricate machine 2.1 Observe regular cleaning of machine 2.2 Follow the safety procedures in machine cleaning 2.3 Perform regular maintenance schedules	TLE_HEDM7/8BM-0i-7
LESSON 5. PRACTICE OCCUPATIONAL SAFETY AND HEALTH				
1. Hazards and Risks Identification and Control	The learner demonstrates understanding in practicing occupational safety and health in dressmaking/tailoring.	The learner consistently practices occupational safety and health in dressmaking/tailoring.	LO 1. Identify and evaluate hazards and risks 1.1. Explain workplace hazards and risks 1.2. Identify hazards and risks in the workplace 1.3. Explain the causes of hazards and risks	TLE_HEDM7/8BM-0j-8

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
HOME ECONOMICS – DRESSMAKING
Grade 9 (Specialization)**

Course Description:

This curriculum guide on DRESSMAKING leads to National Certificate Level II (NC II). This course is design for **Grade 9** student to develop knowledge, skills, and attributes to perform the tasks on DRESSMAKING. It covers core competencies namely 1) Produce sleeping garments; 2) Produce children’s wear

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<p>Introduction</p> <ol style="list-style-type: none"> 1. Core concepts in dressmaking 2. Relevance of the course 3. Career opportunities 	The learner demonstrates understanding of core concepts and theories in dressmaking.	The learner independently demonstrates core competencies in dressmaking as prescribed in the TESDA Training Regulation.	<ol style="list-style-type: none"> 1. Explain core concepts in dressmaking 2. Discuss the relevance of the course 3. Explore on opportunities for dressmaking as a career 	
CONCEPT REVIEW				
PERSONAL ENTREPRENEURIAL COMPETENCIES - PECs (PC)				
<ol style="list-style-type: none"> 1. Dimensions of Personal Entrepreneurial Competencies <ol style="list-style-type: none"> 1.1. Three Clusters of PECs (Achievement, Planning, Power Clusters) 1.2. Characteristics 2. Assessment of Personal Competencies and Skills (PECs) 	The learner comprehends Personal Entrepreneurial Competencies – its dimensions and characteristics.	The learner recommends specific strategies to improve ‘weak’ areas and sustain ‘strong’ areas of their PECs.	<p>LO 1. Assess Personal Entrepreneurial Competencies</p> <ol style="list-style-type: none"> 1.1. Explain dimensions/clusters of PECs and the different characteristic traits per cluster 1.2. Evaluate one’s PECs 	TLE_PECs9-IO-1
BUSINESS ENVIRONMENT AND MARKET (EM)				
<ol style="list-style-type: none"> 1. Factors included in the Business Environment 2. Spotting and Identifying Business Opportunities 	The learner demonstrates understanding of the different factors that influence the business environment	<p>The learner analyzes how factor influence the business environment.</p> <p>The learner relates experience in generating business ideas or identifying business opportunities.</p>	<p>LO 2. Understand the business environment and business ideas</p> <ol style="list-style-type: none"> 2.1 Explain how different factors influence the business environment 2.2 Explain procedures for generating business ideas or identifying business opportunities 2.3 Generate business ideas and identify business opportunities 	TLE_EM9-IO-1
Quarter I				
LESSON 1: PRODUCE SLEEPING GARMENTS (SG)				

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
1. Principles and elements of design 2. Types of fabrics 3. Fabric properties 4. Types of sleeping garments 5. Characteristics of a sleeping garments 6. Project plan for sleeping garments 7. Tools, materials and equipment needed 8. Measurements needed in sewing sleeping garments 9. Procedures in drafting basic/block pattern for sleeping garments 10. Drafting basic/block pattern 11. Pattern Symbols 12. Manipulating basic/block pattern 13. Techniques in cutting final pattern	The learner demonstrates understanding on the principles of designing and sewing of sleeping garments	The learner plan, design and sew sleeping garments.	LO 1. Draft and cut pattern for sleeping garments 1.1. Plan garment design 1.2. Take client's body measurement 1.3. Draft basic/ block pattern 1.4. Manipulate Patterns 1.5. Cut final Pattern	TLE_HEDM9SG-Ia-f-1
14. Fabric care 15. Characteristics of fabrics 16. Selection of fabrics suited for sleeping garments design 17. Marking tools 18. Principles of laying out the fabric 19. Principle of laying out patterns 20. Laying out pattern pieces 21. Transferring pattern marks and symbols onto the fabric 22. Guidelines in cutting fabric 23. Fabric cutting			LO 2. Prepare and cut materials for sleeping garments 2.1 Prepare materials 2.2 Lay- out and pin patterns on fabrics 2.3 Cut fabrics	TLE_HEDM9SG-Ig-i-2
Quarter II				
LESSON 1: PRODUCE SLEEPING GARMENTS (SG)				
1. Pre-assembling procedure 2. Pressing techniques 3. Kinds of seams and seam finishes 4. Preparing parts for sewing 5. Unit method of assembling sleeping garments 6. Procedure in assembling sleeping garments			LO 3. Assemble sleeping garments parts 3.1 Prepare cut parts 3.2 Sew and assemble sleeping garments parts	TLE_HEDM9SG-IIa-g-3
6.1. Finishing touches 6.2. Hemming stitches 6.3. Attaching fastener 7. Trimming techniques for sleeping garments			LO 4. Apply finishing touches on sleeping garments 4.1 Apply finishing touches 4.2 Alter completed garment	TLE_HEDM9SG-IIh-j-4

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
8. Evaluation of finished sleeping garments 9. Pressing tools, materials and equipment 10. Procedure in pressing sleeping garments 11. Application of heat and pressure on sleeping garments 12. Labeling of garments 13. Kinds of packaging materials 14. Procedures in packaging finished garments			4.3 Press finished garment 4.4 Pack finished garment	
Quarter III LESSON 2: PRODUCE CHILDREN’S WEAR (CW)				
1. Designs of children’s wear 2. Characteristics of a well-fitted children’s wear 3. Types of fabrics suited for children’s dresses 4. Types of sleeves 4.1. Set-in 4.2. Puff 4.3. Bell 4.4. Butterfly 4.5. Angel 5. Types of collars 5.1. Peter pan 5.2. Sports 5.3. Sailors 5.4. Flat 6. Types of skirts 6.1. pencil 6.2. balloon 6.3. pleated 6.4. sheared or gathered 6.5. peplum 6.6. bubble 7. Types of facing and interfacing 8. Types of pockets 8.1. Patch 8.2. Seam 8.3. Welt 9. Project plan for children’s wear 10. Body measurements for children’s wear 11. Procedure in taking body measurement for children’s wear	The learner demonstrates understanding on the principles of designing and sewing children’s wear	The learner plan, design and sew children’s wear.	LO 1. Draft and cut pattern for children’s dress 1.1. Plan garment design 1.2. Take client’s body measurement 1.3. Draft basic/ block pattern 1.4. Manipulate Pattern 1.5. Cut final Pattern	TLE_HEDM9CW-IIIa-h-5

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
12. Procedures in drafting basic/block pattern for children's wear 13. Manipulating basic/block pattern for children's wear 14. Techniques in cutting final pattern				
15. Accessories and accents for children's wear 16. Laying out pattern pieces for children's wear 17. Transferring of marks onto the fabric 18. Cutting fabrics			LO 2. Prepare and cut materials for children's dress 2.1 Prepare materials 2.2 Lay- out and pin pattern on fabric 2.3 Cut fabric	TLE_HEDM9CW-IIIi-j-6
Quarter IV				
LESSON 2: PRODUCE CHILDREN'S WEAR (CW)				
1. Pre-assembling procedure for children's wear 2. Techniques pressing in children's wear 3. Preparing parts for sewing 4. Unit method of assembling 5. Procedure in assembling children's dress.			LO 3. Assemble garment parts for children's wear 3.1 Prepare cut parts 3.2 Sew and assemble children's wear	TLE_HEDM9CW-IVa-h-7
1. Finishing touches 1.1. Hemming stitches* 1.2. Types of fasteners 1.3. Buttons* 1.4. Snap* 1.5. hook and eye* 1.6. zipper* 1.7. magnetic tape* 2. Attaching fastener 3. Trimming techniques for children's wear 4. Procedure in pressing children's wear 5. Application of heat and pressure on children's wear 6. Characteristics of a well-fitted children's wear 7. Evaluation of finished children's wear 8. Labeling of garments 9. Kinds of packaging materials 10. Procedure in packing of children's wear			LO 4. Apply finishing touches on children's wear 4.1 Apply finishing touches 4.2 Alter completed garment 4.3 Press finished garment 4.4 Pack finished garment	TLE_HEDM9CW-IVi-j-8

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
HOME ECONOMICS – DRESSMAKING**

GRADE 10 (Specialization)

Course Description:

Prerequisite: Grade 9 Dressmaking

This curriculum guide on **Dressmaking** leads to National Certificate Level II (NC II). This course is design for a **grade 10** student to develop knowledge, skills, and attitude to perform tasks on Dressmaking. It covers three competencies that a grade 10 Technology and Livelihood Education (TLE) student ought to possess namely: 1) Produce ladies skirt; 2) Produce ladies blouse and 3) Produce ladies trousers. The preliminaries of this specialization course includes the following: 1) Explain core concepts in dressmaking; 2) Discuss the relevance of the course 3) Explore on opportunities for dressmaking as a career.

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
Introduction 1. Core concepts in dressmaking 2. Relevance of the course 3. Career opportunities	The learner demonstrates understanding of core concepts and principles in dressmaking.	The learner independently demonstrates core competencies in dressmaking as prescribed in the TESDA Training Regulation.	1. Explain core concepts in dressmaking 2. Discuss the relevance of the course 3. Explore on opportunities for dressmaking as a career	
PERSONAL ENTREPRENEURIAL COMPETENCIES - PECS				
1. Assessment of Personal Competencies and Skills (PECs) vis-à-vis a practicing entrepreneur in the locality. 1.1. Characteristics 1.2. Lifestyle 1.3. Skills 1.4. Traits 2. Analysis of PECs in relation to a practitioner 3. Application of PECs to the chosen business/career	The learner demonstrates understanding of one's PECs in Dressmaking.	The learner independently creates a plan of action that develops/strengthens one's PECs in Dressmaking.	LO 1. Develop and strengthen PECs needed in Dressmaking. 1. Identify areas for improvement, development and growth 2. Use one's PECs for a business or career choice 3. Create an action plan to ensure success in the business or career choice	TLE_PECs10-I0-1
ENVIRONMENT AND MARKET (EM)				
1. Product development 2. Key concepts of developing a product 3. Finding value for the product 4. Innovation 4.1. Unique Selling Proposition (USP)	The learner demonstrates understanding of environment and market for the Dressmaking in one's locality.	The learner independently creates a business vicinity map reflective of potential Dressmaking market within the locality.	LO 1. Develop a product/ service in Dressmaking 1.1. Explain what makes a product unique and competitive 1.2. Identify what is of "Value" to the customer 1.3. Apply creativity and Innovative techniques to develop marketable product 1.4. Employ a Unique Selling Proposition (USP) to the	TLE_EM10-I0-1

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			product/service	
5. Selecting business idea 6. Key concepts of selecting a business idea 6.1 Criteria 6.2 Techniques			LO 2. Select a business idea 2.1 Enumerate various criteria and steps in selecting a business idea 2.2 Analyze a business idea based on the criteria/techniques set 2.3 Apply the criteria/steps in selecting a viable business idea	TLE_EM10-I0-2
7. Branding			LO 3. Develop a brand for the product 3.1 Identify the benefits of having a good brand 3.2 Enumerate the criteria in developing a brand 3.3 Create a unique product brand	TLE_EM10-I0-3
Quarter 1				
LESSON 1: PRODUCE LADIES' SKIRTS (SK)				
1. Principles and elements of design 2. Types of fabrics suited for ladies skirt 3. Fabric Properties 4. Body measurements for ladies skirt 5. Procedure in taking body measurement for ladies skirts 6. Types of ladies skirts 7. Types of facing and interfacing 8. Procedures in drafting ladies skirts 9. Drafting basic/block pattern 10. Manipulating basic/block pattern 11. Techniques in cutting final pattern	The learner demonstrates understanding on the principles of designing and sewing of ladies skirts.	The learner plan, design and sew ladies skirts.	LO 1. Draft and cut pattern for ladies skirts 1.1. Plan garment design 1.2. Take client's body measurement 1.3. Draft basic/ block pattern 1.4. Manipulate Pattern 1.5. Cut final Pattern	TLE_HEDM10SK-Ia-c-1
12. Characteristics of fabrics 13. Selection of accessories suited on fabric types and designs 14. Principles of laying out the			LO 2. Prepare and cut materials for ladies skirts 2.1 Prepare materials 2.2 Lay- out and mark pattern on	TLE_HEDM10SK-Id-2

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
fabric 15. Laying out pattern pieces 16. Transferring of marks onto the fabric			material 2.3 Cut materials	
17. Pre-assembling procedure 18. Pressing techniques 19. Procedure in assembling ladies skirts 20. Preparing parts for sewing 21. Unit method of assembling ladies skirts 22. Characteristics of a well-fitted ladies skirts 23. Evaluation of finished ladies skirts			LO 3. Assemble garment parts for ladies skirts 3.1 Prepare cut parts 3.2 Sew and assemble athletic ladies skirts 3.3 Alter completed garment	TLE_HEDM10SK-Ie-i-3
24. Finishing touches 24.1. Hemming stitches 24.2. Attaching fasteners 25. Trimming techniques for ladies skirt 26. Procedure in pressing ladies skirts 27. Application of heat and pressure on ladies skirts 28. labeling of garments 29. Kinds of packaging materials 30. Procedures in packaging finished garment			LO 4. Apply finishing touches on ladies skirts 4.1 Apply finishing touches 4.2 Press finished garment 4.3 Pack finished garment	TLE_HEDM10SK-Ij-4
Quarter II				
LESSON 2: PRODUCE LADIES' BLOUSE (BL)				
1. Designs of blouse 2. Types of fabrics suited for ladies blouse 3. Types of necklines 4. Types of sleeves 4.1. Set-in 4.2. Puff 4.3. Kimono	The learner demonstrates understanding on the principles of designing and sewing of ladies blouse.	The learner plan, design and sew ladies blouse.	LO 1. Draft and cut pattern for ladies blouse 1.1. Plan garment design 1.2. Take client's body measurement 1.3. Draft basic/ block pattern 1.4. Manipulate Pattern 1.5. Cut final Pattern	TLE_HEDM10BL-IIa-d-5

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
4.4. Raglan 4.5. Dolman 5. Types of facing and interfacing 6. Types of pockets 6.1. Patch 6.2. Welt 7. Body measurements for ladies blouse 8. Procedure in taking body measurement for ladies blouse 9. Procedures in drafting ladies blouse 10. Drafting basic/block pattern for ladies blouse 11. Manipulating basic/block pattern for ladies blouse 12. Techniques in cutting final pattern				
13. Accessories and Accents for ladies blouse 14. Laying out pattern pieces for ladies blouse 15. Transferring of marks onto the fabric 16. Cutting the fabric			LO 2. Prepare and cut materials for ladies blouse 2.1 Prepare materials 2.2 Lay- out and mark pattern on material 2.3 Cut materials	TLE_HEDM10BL-IIe-6
17. Pre-assembling procedure for ladies blouse 18. Pressing techniques ladies blouse 19. Procedure in assembling ladies blouse 20. Preparing parts for sewing ladies blouse 21. Unit method of assembling ladies blouse 22. Characteristics of a well-fitted ladies blouse 23. Evaluation of finished ladies blouse			LO 3. Assemble garment parts for ladies blouse 3.1 Prepare cut parts 3.2 Sew and assemble ladies blouse 3.3 Alter completed garment	TLE_HEDM10BL-IIi-f-7

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
24. Types of fasteners 24.1. Buttons* 24.2. snap* 24.3. hook and eye* 24.4. zipper* 25. Finishing touches 25.1. Hemming stitches* 25.2. Attaching fastener* 26. Trimming techniques for ladies blouse 27. Procedure in pressing ladies blouse 28. Application of heat and pressure on ladies blouse 29. Labeling of garments 30. Kinds of packaging materials 31. Procedure in packaging finished garments			LO 4. Apply finishing touches on ladies blouse 4.1 Apply finishing touches 4.2 Press finished garment 4.3 Pack finished garment	TLE_HEDM10BL-IIj-8
Quarter III LESSON 3: PRODUCE LADIES' TROUSERS (TR)				
1. Designs of ladies trousers 2. Types of fabrics suited for ladies trousers 3. Types of pockets 3.1. Patch* 3.2. Seam* 3.3. Welt* 4. Types of facing and interfacing 5. Body measurements for ladies trousers 6. Procedure in taking body measurement for ladies trousers 7. Procedures in drafting ladies trousers 8. Drafting basic/block pattern for ladies trousers 9. Manipulating basic/block pattern for ladies trousers	The learner demonstrates understanding on the principles of designing and sewing ladies trousers.	The learner plan, design and sew ladies trousers	LO 1. Draft and cut pattern for ladies trousers 1.1. Plan garment design 1.2. Take client's body measurement 1.3. Draft basic/ block pattern 1.4. Manipulate Pattern 1.5. Cut final Pattern	TLE_HEDM10TR-IIIa-h-9

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
10. Techniques in cutting final pattern				
11. Laying out pattern pieces for ladies trousers 12. Transferring of marks onto the fabric 13. Cut fabric			LO 2. Prepare and cut materials for ladies trousers 2.1 Prepare materials 2.2 Lay- out and mark pattern on material 2.3 Cut materials	TLE_HEDM10TR-IIIi-j-10
Quarter IV				
LESSON 3: PRODUCE LADIES' TROUSERS (TR)				
1. Pre-assembling procedure for ladies trousers 2. Pressing techniques ladies trousers 3. Procedure in assembling ladies trousers 4. Preparing parts for sewing ladies trousers 5. Unit method of assembling ladies trousers 6. Characteristics of a well-tailored ladies trousers 7. Evaluation of finished ladies trousers			LO 3. Assemble garment parts for ladies trousers 3.1 Prepare cut parts 3.2 Sew and assemble ladies trousers 3.3 Alter completed garment	TLE_HEDM10TR-Iva-h-11
8. Types of fasteners 9. Buttons 9.1. Snap 9.2. hook and eye 9.3. zipper 10. Finishing touches 10.1. Hemming stitches 10.2. Attaching fastener 11. Trimming techniques for ladies trousers 12. Procedure in pressing ladies trousers			LO 4. Apply finishing touches on ladies trousers 4.1 Apply finishing touches 4.2 Press finished garment 4.3 Pack finished garment	TLE_HEDM10TR-IVi-j-12

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
13. Application of heat and pressure on ladies trousers 14. Labeling of garments 15. Kinds of packaging materials 16. Procedure in packaging finished garments				

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HOME ECONOMICS -- DRESSMAKING
GLOSSARY**

Accessories	articles of clothing worn to complete or to complement one's outfit.
Accuracy	the exactness of a measured distance or circumference
Altering	changing portion of a garment so that it fits the body
Apparel	clothing or dress
Bartacking machine	This is used in reinforcing the opening and closing of pockets
Balance wheel	sets the mechanism in motion.
Band wheel crank	leads the balance wheel through the belt connection. Band wheel crank moves the band wheel.
Belt	connects the balance wheel to the drive wheel.
Belt guide	holds the belt to its place.
Belt shifter	removes the belt from the wheel.
Bias	cloth that us cut slantwise across the grain
Bobbin	is a metal spool for winding thread.
Bobbin case	holds the bobbin.
Bobbin winder	controls the bobbin while winding thread.
Bust	lift your arms to the side.
Bust to bust	measure from your one nipple to your other nipple.
Button attachment machine	This is used in attaching buttons to the garments.
Button holer machine	This is used in making buttonholes on garments.
Cabinet	holds the head of the machine by interlocking screw on the hinges.
Calculation	the process or an act of calculating
Calculator	an electronic device used for speed computation
Conversion	a change of figures like changing from centimeters to inches and vice versa

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Cost	the amount paid or charge for something that is acquired
Cutting tools	a cutting implement; a tool for cutting.
Design	the arrangement of parts, details, forms, and colors to produce something new
Double needle machine	This is used in the construction of the different kinds of clothing especially for the inseam, out seam and side seam.
Dressmaker's carbon paper	also called dressmaker's tracing paper is a specially waxed carbon paper that transfer's the tracing wheel's markings to the fabric.
Dress guard	protects the dress from the wheel.
Embroidery machine	This is used in making fancy stitches and in making different kinds of embroidery stitches on fabrics for the barong tagalog, pillow cases, linen, and other novelty items.
Fabric	the cloth used in making garments.
Feed dog	moves the fabric while sewing.
Firm weave	a weave in which the yarns or threads are tightly twisted and placed close together
Flax	a plant which produces linen fiber
French curve	This is used to shape the depth of the neckhole and armhole of the pattern.
Garment	any article of clothing
Grainline	the direction in which the yarns or threads are woven
Hand needle	used in making temporary stitches and buttonholes. Sizes of 7 to 10 are for general hand sewing.
Hemline	the marked line at the bottom of the garment where the hem is turned
Hi-speed lockstitch sewing machine	This is sometimes called „straight stitching machine or industrial sewing machine. It has automatic lubrication and is used by tailors and Dressmakers.
Hips	measure around the fullest part of your hips.
Household fabrics	curtains, carpets, bed linen, etc.
IMC	Individual Measurement Chart
Knit	connected loops of yarn with big needles to form a fabric
Label (for clothes)	a card, fabric or paper marked and attached to an object to indicate its contents, manufacturer, care, and origin
Legs	support the cabinet of the machine.

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Length	the longer or longest dimension of an object to measure
Lingerie (lohn-zhu-ray)	girls' and women's under-clothing such as slips, panties, bras, girdles, robes, pajamas, and nightgowns.
Lockstich sewing machine	This is usually used in homes and sometimes in school. This is also called -domestic sewing machine. It is run by foot and may also be converted to electric power machine.
Lower bust	measure around the torso directly under the bust line.
I-square/ tailor square or "I"	is used to transfer measurements to the draft pattern. It also divides the garment into the desired measurement. It has perfect squares and is useful in making straight lines and numbers. It can also function as a tape measure.
Measuring tools	an instruments used for obtaining quantities, dimensions or forces of real world objects.
Measurement	a systematic procedure of determining the quantity or extent of the entire measurable dimension
Metric system	a decimal system of physical units based on a unit of length known as the meter (greek metron, -measure)
Needle	is a slender tool attached in the needle clamp used for sewing.
Needle bar	holds the needle in place.
Needle clamp	holds and tightens the needle.
Neutral color	a "dim" tone, made by mixing complementary colors
Pincushion	a pincushion holds the straight pins and needles while working to prevent accidents.
Over edging machine	Other companies call it-small machine. It finishes the raw edges of the pattern for construction.
Pattern	a piece of paper usually one-half of the body parts used as a guide in cutting the garments
Pitman rod	holds the treadle to band wheel crank.
Plaid	a pattern consisting of colored bars or stripes which cross each other to form squares, repeated on the fabric
Presser bar lifter	moves the presser foot.
Presser foot	holds the fabric in place while sewing.
Print	to stamp or press a design onto a fabric surface; fabric printed with a surface design (not dyed)
Ravel	to become unwoven; to separate or untwist threads or yarns
Rulers	a ruler measuring 12 inches or even 18 inches, either clear or solid used for measuring and drawing straight seam lines and cutting lines. It also aids in connecting lines.
Scissor	a cross-blade cutting instrument about 5 inches 6 inches long with two small looped handles

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

Seam	any stitching or sealing of two pieces at the edges
Selvage	each side of a woven fabric, finished with a woven edge
Sewing gauge	a small ruler with a sliding guide and is about six inches long. This gauge is used for measurements at hem lines, button holes and areas where other small measurements require checking, such as pleats and tucks.
Sewing machine	a textile machine used to stitch fabric, cards and other material with thread.
Sewing needle threader	it aids in putting the thread to the needle.
Sewing tools	instruments that aid in accomplishing a sewing task
Shears	scissor-type cutting device with one large handle, one small
Sheer	very thin or transparent fabrics
Shoulder to bust	measure from tip of the shoulder to the centre of bust (nipple).
Slide plate	is a movable plate that covers the shuttle and bobbin case.
System	the English system has inches for its basic unit
Shuttle	holds the bobbin case while sewing.
Spool pin	is the thread holder.
Stitch regulator	checks the length of the stitches.
Stop motion screw	hinders moving when loosened and start.
Style	a quality or type of clothing
Tailor's chalk	This is essential as a marker for use on materials. Tailor's chalk is available in a range of colors and is removed by brushing.
Tape measure	a flexible measuring device used in taking body measurements.
Thimble	a small hard pitted cup worn for protection on the finger that pushes the needle in <u>sewing</u> .
Thread guide	keeps the thread in position.
Thread take up lever	releases the thread and interlocks with the bobbin thread.
Treadle	is where the feet are stationed to drive the band wheel through the pitman rod.
Tension	controls the looseness and tightness of stitches.

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Texture	the surface characteristics of a fabric, which can be seen or felt
Tint	whitened color
Tracing wheel	there are two types of tracing wheels, those with a serrated edge and those with a smooth edge. The serrated edge wheel produces dots on the fabric and is suitable for most types of fabrics. The smooth edge wheel is best for delicate fabrics and unlike the serrated edge will not pierce more delicate fabrics. The smooth edge wheel creates a solid line.
Upper bust	measure around the torso directly above the bust line.
Upholstery	plastic or fabric coverings for furniture , usually more durable than fabric for clothing
Waist	measure around the waist.
Warp yarn	lengthwise (up-and-down) yarn or thread in a woven fabric
Wax chalk	this is available in black or white and is used for woolen fabrics. Wax can be removed by pressing.
Weaving	process of forming a fabric on a loom by interlacing the warp and the filling (crosswise) yarns with each other
Width	measurement taken at the shortest dimension of the object to measure
Yardstick	a graduated measuring stick one yard in length.
Yarn	a continuous strand of twisted threads of natural or synthetic material, such as wool or nylon, used in weaving or knitting

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TECHNOLOGY AND LIVELIHOOD EDUCATION
HOME ECONOMICS – DRESSMAKING**

Code Book Legend

Sample: TLE_HEDM10TR-IIIa-h-9

LEGEND		SAMPLE	
First Entry	Learning Area and Strand/ Subject or Specialization	Technology and Livelihood Education_Home Economics Dressmaking	TLE_HE DM 10
	Grade Level	Grade 10	
Uppercase Letter/s	Domain/Content/ Component/ Topic	Produce Ladies' Trousers	TR
			-
Roman Numeral <i>*Zero if no specific quarter</i>	Quarter	First Quarter	III
Lowercase Letter/s <i>*Put a hyphen (-) in between letters to indicate more than a specific week</i>	Week	Week Eleven	a-h
			-
Arabic Number	Competency	Draft and cut pattern for ladies trousers	9

DOMAIN/ COMPONENT	CODE
Personal Entrepreneurial Competencies	PC
Environment and Market	EM
Use of Sewing Tools	UT
Carry Out Measurements and Calculations	MT
Read and Interpret Product Designs	ID
Perform Basic Maintenance	BM
Produce Sleeping Garments	SG
Produce Children's Wear	CW
Produce Ladies' Skirts	SK
Produce Ladies' Blouse	BL
Produce Ladies' Trousers	TR



Travel Services

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
HOME ECONOMICS – TRAVEL SERVICES (TS)
Grade 10 (Specialization)**

Course Description:

This curriculum guide on **TRAVEL SERVICES** leads to National Certificate Level II (NC II). This course is designed for a **Grade 10** student to enhance the knowledge, skills, and attitudes of a learner in tour servicing in accordance with industry standards. It covers specialized competencies such as: book travel-related reservation, administering billing and settlement plan, and issuing air sea land tickets and multipurpose documents.

Course Prerequisites:

The student/enrollee of this course must possess the following:

1. Excellent communication skills (*must be proficient in the Native Language/s; Filipino, English, and/or Foreign language/s*)
2. Computer literacy
3. Good visual impact and pleasing personality
4. Perfect vision (20/20) or with contact lenses but not beyond (20/30)

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<p>Introduction</p> <ol style="list-style-type: none"> 1. Key concepts in Travel Services (TS) 2. Relevance of the course 3. Career opportunities 	The learners demonstrate an understanding of concepts and theories in TS.	The learners independently demonstrate core competencies in TS as prescribed in the TESDA Training Regulation.	<p><i>The learners:</i></p> <ol style="list-style-type: none"> 1. explain concepts in TS 2. discuss the relevance of the course 3. explore opportunities for a career in TS 	
QUARTER 1				
Lesson 1 – The Philippine Tourism Industry (PT)				
<p>A. The government sector</p> <ol style="list-style-type: none"> 1. Department of Tourism (DOT) <ol style="list-style-type: none"> a. Internal Services b. Tourism Promotions c. Tourism promotions & RO d. Planning, Product Development & Coordination 2. The Philippine Convention and Visitors Corporation (PCVC) 3. The Philippine Tourism Authority <ol style="list-style-type: none"> a. Vision 	The learners demonstrate an understanding of the role of the Philippine tourism industry.	The learners graphically show how the Philippine tourism industry operates.	<p>LO 1. Understand totally the Philippine tourism industry</p> <ol style="list-style-type: none"> 1.1 explain the role of the National Tourism Office, its attached agencies, and the local government unit (LGU) in the tourism industry 1.2 define the role of the various sub-sectors of the private sectors that comprise the tourism industry 1.3 identify specific entities in the private sector and explain their specific function in the tourism industry 	TLE_HETS10PT-Ia-e-1

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<ul style="list-style-type: none"> b. Mission c. Functions 4. Senate Bill 1725 <ul style="list-style-type: none"> a. The local government units (LGUs) b. Other national government units B. The Private Sector <ul style="list-style-type: none"> 1. The transportation industry <ul style="list-style-type: none"> a. Air b. Land c. Sea <ul style="list-style-type: none"> i. Shipping ii. Cruises 2. Oil companies 3. Lodging industry 4. Food and beverage industry 5. The attractions and activities industry <ul style="list-style-type: none"> a. Attractions Industry b. Activities (recreation & entertainment) Industry 6. The travel trade 7. The other private sector entities <ul style="list-style-type: none"> a. Publishing companies b. ITC service providers c. marketing and public relations organizations d. Event organizers e. Miscellaneous Services 8. Education and training Institutions 				

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
LESSON 2 - Travel Management Companies and Travel Agencies (TM)				
<p>A. Different kinds of travel agencies</p> <ol style="list-style-type: none"> 1. Traditional way 2. New way <p>B. Functions of Travel Management Company (TMC)/Travel Agency</p> <ol style="list-style-type: none"> 3. Provide information and expertise 4. Recommend destinations, products, and services best suited to the needs of the client 5. Provide assistance in securing travel documents 6. Process travel arrangements 7. Assist in case of refunds and cancellations <p>C. Sales Revenue of a TMC</p> <p>D. Characteristic of a TMC</p> <p>E. Organizational structure, departmental functions, and Job descriptions</p> <ol style="list-style-type: none"> 1. Administration <ol style="list-style-type: none"> a. General administration section b. Personnel section c. Accounting section d. Finance section 2. Operation 3. Marketing and sales <ol style="list-style-type: none"> a. Setting up a TMC/TA 4. Small-size TMC/TA 5. Medium-sized TMC/TA 6. Large-size TMC/TA 	<p>The learners demonstrate an understanding of operating a travel business.</p>	<p>The learners independently operate a travel business.</p>	<p>LO 2. Describe the travel management companies and travel agencies</p> <ol style="list-style-type: none"> 2.1 differentiate the traditional "rate-minus" from the evolving "cost-plus" concepts 2.2 explain the five basic functions of Travel Management Company (TMC)/travel agency 2.3 explain the departmental functions of a TMC/travel agency 2.4 understand the duties and responsibilities of the various designations in a TMC/travel agency 2.5 enumerate the various requirements to set up a TMC/travel agency 2.6 explain the difference between an LGU license and a DOT accreditation 	<p>TLE_HETS10TM-If-j-2</p>

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
a. LGU and DOT				
QUARTER 2				
LESSON 3 – Markets and Destinations (MD)				
<p>A. Markets</p> <ol style="list-style-type: none"> 1. Leisure travel motivations <ol style="list-style-type: none"> a. Physical b. Cultural c. Interpersonal d. Status and Prestige 2. Leisure travel de-motivations <ol style="list-style-type: none"> a. Cost of travel b. Lack of time c. Health d. Family stage e. Lack of interest f. Fear and safety 3. Other factors that influence travel <ol style="list-style-type: none"> a. Age b. Gender c. Education <ol style="list-style-type: none"> i. Market variables d. Socioeconomic e. Product related f. Geographic <ol style="list-style-type: none"> i. Types of tourism g. Historical h. Cultural i. Religious j. Adventure k. Environmental or Eco-tourism l. Culinary m. Medical n. Recreational 4. Corporate travel or business travel 	<p>The learners demonstrate an understanding of the market and destination in travel services.</p>	<p>The learners independently recognize and identify the appropriate market and destination in travel services appropriate to travelers’ needs, motives, and aspirations.</p>	<p>LO 3. Identify the markets and destinations</p> <ol style="list-style-type: none"> 3.1 explain why people travel and the needs, motives, and aspirations of travelers 3.2 explain the difference between leisure travelers and business travelers 3.3 know how to interpret a map and apply the principles of geography 3.4 know the International Air Transportation Association (IATA) areas 3.5 locate countries and cities and describe their tourist attractions 3.6 know Philippine national regions and their provinces 3.7 locate the major Philippines cities and describe their tourist attractions 3.8 know the criteria for assessing destinations’ traits and attractions 3.9 apply the criteria to assess a specific destination’s traits and attractions 3.10 match the travelers’ motivations with destination’s traits and attractions both locally and internationally 	<p>TLE_HETS10MD-IIa-e-3</p>

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<ul style="list-style-type: none"> 5. Destinations <ul style="list-style-type: none"> a. Natural attractions b. Cultural attractions c. Recreational facilities d. Religious gatherings and festivals e. Destination assessment <ul style="list-style-type: none"> i. Transportation ii. Facilities iii. Infrastructure iv. Attractions v. Hospitality resources 6. Matching markets with destinations <ul style="list-style-type: none"> a. Domestic traveler b. Budget traveler c. Regular traveler 7. High-end traveler 8. Destination evaluation 9. Accessibility 10. Comfort and convenience 11. Education and entertainment 12. Service, safety and security 13. The good match B. Maps and Map Reading <ul style="list-style-type: none"> 1. Definitions 2. Principles of geography and terms 3. World Tourism Geography <ul style="list-style-type: none"> a. Area I – The Americans b. Area II – Europe, Middle East and Africa 				

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
c. Area III – Asia and Pacific (Oceania)				
LESSON 4 – The Internet and E-Travel Commerce (ET)				
<p>A. Internet in travel agency</p> <ol style="list-style-type: none"> 1. The Internet-cyberspace 2. Demand-side 3. Travel web portals 4. Expedia Inc. 5. Supply-side <p>B. Computerized Reservation System (CRS) to global Distribution Systems (GDS)</p> <p>C. Conversions</p> <p>D. Amadeus Information system</p> <p>E. Online help</p> <p>F. Travel information system</p> <p>G. Other services information</p> <p>H. Special Service requests</p> <ol style="list-style-type: none"> 1. Advance Passenger Information System (APIS) <p>I. Advance seat request</p> <ol style="list-style-type: none"> 1. Seat wish <p>J. Rebooking flights, classes, and dates</p>	The learners demonstrate an understanding of operating the Internet and computerized E-travel commerce.	The learners independently operate the Internet and computerized E-travel commerce.	<p>LO 4. Practice the Internet and E-travel commerce</p> <p>4.1 understand the true impact of the Internet in the travel industry</p> <p>4.2 appreciate the contribution of technology to the growth and maturity of the travel business</p> <p>4.3 describe the different applications of the Internet in the travel business</p> <p>4.4 identify the advantages and disadvantages of the Internet to consumers and to travel agents</p> <p>4.5 explain the need of travel agencies to evolve and become travel management companies</p>	TLE_HETS10ET-IIIf-j-4
QUARTER 3				
LESSON 5 – The Travel Management Cycle (MC)				
<p>A. Counter counseling</p> <ol style="list-style-type: none"> 1. Flight itinerary planning 2. Crisscrossing 3. Backtracking <ol style="list-style-type: none"> a. Basic procedures in flight itinerary planning 4. Two city hubs 5. Three city hubs <ol style="list-style-type: none"> a. 24-hour time and time zones b. Booking card for 	The learners demonstrate an understanding of procedures in travel management.	The learners independently plan individual and group travels.	<p>LO 5. Explain the travel management cycle</p> <p>5.1 describe the functions involved in managing travel arrangements for leisure travel</p> <p>5.2 plan a flight itinerary using a map or a flight planner</p> <p>5.3 place manual or automated reservations with the airlines and the hotels</p> <p>5.4 understand the rules and principles of airfare calculation</p>	TLE_HETS10MC-IIIf-a-e-5

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<ul style="list-style-type: none"> travel 6. Reservations and Confirmations 7. Flight reservations <ul style="list-style-type: none"> a. Manual b. Electronic c. Automated d. Amadeus Automated Reservation System B. Availability display C. Timetable display D. Flight information E. Airline access levels F. Amadeus Passenger Name Record (PNR) G. Segment Element H. Name element I. Contact element J. Received from element K. Ticketing element L. End transactions <ul style="list-style-type: none"> 1. Other reservations <ul style="list-style-type: none"> a. Accommodations establishments b. Sightseeing tours and Tour Packages c. Cruises d. Restaurant and other Entertainment establishments 2. Fare calculation 3. Headline/sideline cities 4. Fares 5. Fare type 6. Carrier code 7. MPM 8. Global indicator 9. Rule 10. NUC 11. Local currency 			<ul style="list-style-type: none"> 5.5 accomplish a Booking Card for travel, a Tour Voucher/ Exchange Order and a Purchase Order 5.6 write and read an Airline Paper and e-tickets 5.7 identify and explain the types of travel documentation 	

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
12. Route reference <ul style="list-style-type: none"> a. International fare display b. Booking codes c. Airline ticketing 13. Paper tickets 14. Electronic air tickets <ul style="list-style-type: none"> a. Printing tickets 15. Advantages 16. Disadvantages M. Documentation <ul style="list-style-type: none"> a. NSO b. DFA c. Bureau of immigration 				
LESSON 6 – Corporate Travel Management (CT)				
Value of corporate travel or business travel <ul style="list-style-type: none"> 1. Financial controls 2. Policy adherence 3. Safety and efficiency <ul style="list-style-type: none"> i. Types of Corporate Travelers 4. Businesspersons 5. Corporate executives 6. Corporate of supervisors/rank-and-file 7. Mariners 8. Land-based overseas workers 9. Government officials and employees <ul style="list-style-type: none"> a. Meetings, Incentives, Conventions, and Exhibition (MICE) 10. Definitions and classifications 11. The bidding process 12. Managing business travel 13. Evaluation and 	The learners demonstrate an understanding of corporate travel management.	The learners independently practice/perform corporate travel management. The learners effectively manage corporate travel on his /her own.	LO 6. Practice Corporate Travel Management <ul style="list-style-type: none"> 6.1 explain the value of Corporate Travel Management 6.2 differentiate the types of corporate travelers 6.3 describe MICE's, marine travel's, and land-based overseas workers' characteristics 6.4 describe the phases involved in corporate travel management 6.5 differentiate the "rate-minus" to "cost-plus" concepts 6.6 describe the corporate usage of intranets and extranets 6.7 prepare and evaluate a proposal or bid for a corporate travel account 	TLE_HETS10CT-IIIIf-j-6

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
assessment of travel requirements 14. Identifying negotiation of contacting vendors 15. Developing (or revising) corporate travel policies, procedures, and budget 16. Implementing travel policies and procedures 17. Managing corporate travel operations 18. Reporting and analyzing performance a. Intranets and extranets in the world of corporate travel				
QUARTER 4				
Lesson 7 – Tour and Travel Products (TP)				
A. EURAIL 1. Eurail global pass 2. Eurail select pass 3. Eurail national pass B. Useful Information 1. Day trains 2. Night trains 3. Tickets C. Car rentals D. Domestic maritime products E. International luxury cruises F. Accommodations/lodging establishments G. Sightseeing tours and tour packages H. Ad Hoc Group Travel arrangements I. Insurance/assist cards J. Miscellaneous	The learners demonstrate an understanding of useful information on travel and tour products.	The learners correctly describe tour and travel products.	LO 7. Describe tour and travel products 7.1 explain why travel agents in the Philippines have products and services other than the sale of air passage and the processing of travel documents 7.2 describe other products and services of the TMC/travel agent 7.3 identify the various products of international cruise companies and maritime products offered by domestic shipping lines in the Philippines	TLE_HETS10TP-IVa-e-7
Lesson 8 – Travel and Tour Accounting Documents and Billing Settlement Plan (TD)				
A. Travel agency accounting	The learners demonstrate an	The learners independently	LO 8. Develop and practice	TLE_HETS10TD-IVf-j-8

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<p>documents</p> <ol style="list-style-type: none"> 1. Walk-in clients to TMC/TA 2. Corporate client 3. TMC/TA to Suppliers 4. For International Air Transport Association (IATA) ticketing 5. For non-IATA ticketing 6. Direct ticketing to non-IATA airlines 7. For services other than tickets-except for tour packages <p>B. Tour operation accounting documents</p> <ol style="list-style-type: none"> 1. Tour voucher 2. With credit arrangements 3. With no credit arrangements 4. Billing Settlement plan for (BSP)-IATA 5. IATA and the BSP 	<p>understanding of processing accounting documents and billing statements to client</p>	<p>process accounting documents and billing statement to client.</p> <p>The learners independently develop travel and tour accounting documents and billing statement plan</p>	<p>travel and tour accounting documents and Billing Settlement Plan</p> <p>8.1 understand the importance of issuing travel and tour documents correctly</p> <p>8.2 describe the sequential flow of travel and tour documents from the issuer to the intermediary to the service provider</p> <p>8.3 explain the distribution of the different copies of the various travel and tour documents</p> <p>8.4 understand the procedures for airline ticket payment through the banking system</p>	

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TECHNOLOGY AND LIVELIHOOD EDUCATION
HOME ECONOMICS – TRAVEL SERVICES**

GLOSSARY

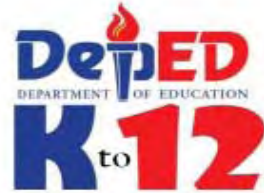
**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
HOME ECONOMICS – TRAVEL SERVICES**

Code Book Legend

Sample: TLE_HETS10PT-Ia-e-1

LEGEND		SAMPLE	
First Entry	Learning Area and Strand/ Subject or Specialization	Technology and Livelihood Education_Home Economics Travel Services	TLE_HE TS 10
	Grade Level	Grade 10	
Uppercase Letter/s	Domain/Content/ Component/ Topic	The Philippine Tourism Industry	PT
			-
Roman Numeral <i>*Zero if no specific quarter</i>	Quarter	First Quarter	I
Lowercase Letter/s <i>*Put a hyphen (-) in between letters to indicate more than a specific week</i>	Week	Week One to Five	a-e
			-
Arabic Number	Competency	Understand totally the Philippine tourism industry	1

DOMAIN/ COMPONENT	CODE
The Philippine Tourism Industry	PT
Travel Management Companies and Travel Agencies	TM
Markets and Destinations	MD
The Internet and E-Travel Commerce	ET
The Travel Management Cycle	MC
Corporate Travel Management	CT
Tour and Travel Products	TP
Travel and Tour Accounting Documents and Billing Settlement Plan	TD



Wellness Massage

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
HOME ECONOMICS – WELLNESS MESSAGE
Grade 10 (Specialization)**

Course Description:

This curriculum guide on **Wellness Message** leads to National Certificate Level II (NCII). This course is designed for a **Grade 10** student ought to develop knowledge, skills, and attitude to perform the tasks on Wellness Massage service. It covers core competencies namely: (1) plan the wellness message program of client/s; (2) provide preliminary services to client/s; (3) apply wellness massage techniques; and (4) provide advice on post-wellness massage services.

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<p>Introduction</p> <ol style="list-style-type: none"> Core concepts in Wellness Massage Relevance of the course Career opportunities 	The learner demonstrates understanding of concepts and underlying principles in WELLNESS MESSAGE	The learner independently demonstrates competencies in WELLNESS MESSAGE as prescribed in the TESDA Training Regulation.	<ol style="list-style-type: none"> Explain basic concepts in wellness massage Discuss the relevance of the course Explore on opportunities for wellness massage as a career 	
PERSONAL ENTREPRENEURIAL COMPETENCIES - PECs (PC)				
<ol style="list-style-type: none"> Assessment of Personal Competencies and Skills (PECs) visà-vis practicing entrepreneur/employee in a province. <ol style="list-style-type: none"> Characteristics Lifestyle Skills Traits Analysis of PECs in relation to a practitioner Application of PECs to the chosen business/career 	The learner demonstrates understanding of one's PECs in Wellness Massage.	The learner independently creates a plan of action that strengthens/ further develops one's PECs in Wellness Massage.	<p>LO 1. Develop and strengthen PECs needed in Wellness Massage</p> <ol style="list-style-type: none"> Identify areas for improvement, development and growth Align one's PECs according to his/her business/career choice Create a plan of action that ensures success of his/her business/career choice 	TLE_PECs10-I0-1
ENVIRONMENT AND MARKET (EM)				
<ol style="list-style-type: none"> Product Development Key concepts of developing a product Finding Value Innovation <ol style="list-style-type: none"> Unique Selling 	The learner demonstrates understanding of environment and market in Wellness Massage in one's town/municipality.	The learner independently creates a business vicinity map reflective of potential Wellness Massage market within the locality/town.	<p>LO 1. Develop a product/ service in Wellness Massage</p> <ol style="list-style-type: none"> Identify what is of "Value" to the customer Identify potential customer 	TLE_EM10-I0-2

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
Proposition (USP)			1.3 Explain what makes a product unique and competitive 1.4 Apply creativity and Innovative techniques to develop marketable product 1.5 Employ a Unique Selling Proposition (USP) to the product/service	
5. Selecting Business Idea 6. Key concepts of Selecting a Business Idea 6.1. Criteria 6.2. Techniques			LO 2. Select a business idea based on the criteria and techniques set 2.1. Enumerate various criteria and steps in selecting a business idea 2.2. Apply the criteria/steps in selecting a viable business idea 2.3. Determine a business idea based on the criteria/techniques set	TLE_EM10-IO-3
7. Branding			LO 3. Develop a brand for the product 3.1. Identify the benefits of having a good brand 3.2. Enumerate recognizable brands in the town/province 3.3. Enumerate the criteria in developing a brand 3.4. Generate unique product brand	TLE_EM10-IO-4
QUARTER I				
Lesson 1- PLAN THE WELLNESS PROGRAM OF CLIENT/S (WP)				
1. Identify vital information of the client 2. Relevant information of the Client/s 2.1. Health History 2.2. Contra-indications 2.3. Inter/Intra Personal Relationship 2.4. Information Gathering 2.5. Standard Operating Procedures (SOP) 3. Explain wellness massage 3.1. History and development	The learner demonstrates understanding the skills and knowledge required to consult with client/s and select and sequence a range of wellness massage techniques as a program.	The learner independently recognizes core competencies.	LO1. Assess/Interview client 1.1 Identify vital information of the client 1.2 Explain wellness massage services and products 1.3 Explain the philosophy and science of wellness massage 1.4 Discuss the health and healing concept of wellness massage 1.5 Discuss the concept of wellness	TLE_HEWM10WP-Ia-j-1

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<ul style="list-style-type: none"> 3.2. Massage Framework (Philosophy and Science) 3.3. Philosophy of wellness massage 3.4. Universal Laws and Natural Laws 4. Health concepts <ul style="list-style-type: none"> 4.1. Harmony of the three faculties (mind, body, emotion) 4.2. Balance of Four Elements (fire, water, air, earth) 5. Healing concepts <ul style="list-style-type: none"> 5.1. valuing process "pagpapahalaga" 5.2. balancing of the four elements thru the following healing modalities <ul style="list-style-type: none"> a. Herbal Massage b. Traditional Massage 6. Wellness massage techniques 7. Explain the wellness massage services and products <ul style="list-style-type: none"> 7.1. Wellness massage services and products 7.2. Pre-wellness massage and post- wellness massage services and products 8. Confirm wellness program <ul style="list-style-type: none"> 8.1. Wellness massage programs variations 8.2. Client's need assessment 8.3. Client's records and documents preparation 8.4. Workplace policies and procedures 			<ul style="list-style-type: none"> 1.6 Confirm wellness massage program 1.7 Update the clients records and documents 1.8 Evaluate the client satisfaction 1.9 Check workplace qualities and procedure 1.10 Confirm wellness massage program 1.11 Update the clients records and documents 1.12 Evaluate the clients satisfaction 1.13 Check workplace policies and procedures 	

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
QUARTER II				
Lesson 2 - PROVIDE PRE-SERVICE TO WELLNESS MESSAGE CLIENT/S (WC)				
<ol style="list-style-type: none"> 1. Schedule clients <ol style="list-style-type: none"> 1.1. Communication Skill 1.2. Telephone etiquette 1.3. Listening Skills 1.4. Non-verbal communication 1.5. Preparation of Appointment schedule 2. Conduct preliminary services to clients <ol style="list-style-type: none"> 2.1. Effective Customer Service 2.2. Workplace policies and procedures 2.3. Record Keeping 2.4. Preliminary Service Procedures 2.5. Wellness massage products, services and programs 			LO1. Provide pre-services to clients <ol style="list-style-type: none"> 1.1 Schedule clients 1.2 Conduct preliminary services to clients <ol style="list-style-type: none"> 1.2.1 Scheduling 1.2.2 Communication 1.3 Observance of good interpersonal relationship 1.4 Emphasis on standards of policies and procedure 1.5 Accuracy of keeping/updating clients record 1.6 Appropriate use of wellness massage products 1.7 Evaluate the clients satisfaction 	TLE_HEWM10WC-IIa-j -2
QUARTER III				
Lesson 3 - APPLY WELLNESS MESSAGE TECHNIQUES (WT)				
<ol style="list-style-type: none"> 1. Prepare client self for wellness massage <ol style="list-style-type: none"> 1.1. Relevant Laws and Workplace policies and procedures 1.2. Application of Proper Draping 1.3. Preparation of wellness massage products, furnishings and paraphernalia 1.4. Preparing Client for the wellness massage program 2. Prepare client for wellness massage session <ol style="list-style-type: none"> 2.1. Personal hygiene practices 2.2. Pre-wellness massage procedure 2.3. Standard operating procedures 3. Perform wellness massage techniques <ol style="list-style-type: none"> 3.1. Hygiene and Infection Control 	Prepare client for wellness massage		LO1. Apply wellness massage techniques <ol style="list-style-type: none"> 1.1 Observe health and safety procedures in wellness massage 1.2 Prepare hygiene practices pre-wellness 1.3 Prepare clients for wellness massage techniques, methods ,massage pressure areas ,duration ,directions and strokes 1.4 Perform wellness massage technique 1.5 Perform self assessment for wellness massage session 1.6 Perform the pre-massage operation through hands and fingers 1.7 Observe policies and standards 	TLE_HEWM10WT-IIIa-j -3

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
Practices 3.2. Methods of Scanning 3.3. Wellness massage techniques a. Methods in locating the imbalances in the body b. Massage Pressure Areas c. Strokes d. long deep stroke (Hagod) e. short light stroke (Haplos) f. one finger press (Pindot) g. two or more finger press (Pisil) h. grasping (Piga) – optional 4. Customized Amount of Pressure Applied 5. Duration of Application of Pressure 6. Direction of Massage 6.1. Generally towards the heart 6.2. hot part of the body to cold (thermal flow) 6.3. towards the lesser lumps 7. Pre-massage procedure 8. Use of hands and fingers as medium based on massage area/body part, duration, frequency, rhythm, and amount of pressure 9. Workplace Standard Operating Procedure 10. Client Responses			of the workplace 1.8 Assist the clients satisfactory response	
QUARTER IV Lesson 4 - Post-advice and Post-services to Clients (AS)				
1. Perform aftercare service A. After Care Service Workplace policies and procedures B. Monitoring Clients			LO1. Provide advice on post wellness massage services 1.1 Perform after care service 1.2 Identify and explain the	TLE_HEWM10AS-IVa-j-4

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<ul style="list-style-type: none"> C. Aftercare products D. Aftercare services E. Rebooking Clients 2. Identify and explain the products <ul style="list-style-type: none"> A. Wellness massage products B. Workplace procedures C. Recommending Products to Client 3. Enumerate and explain other services <ul style="list-style-type: none"> A. Product Benefits B. Other Product Comparisons 			<ul style="list-style-type: none"> products 1.3 Enumerate and explain other services 1.4 Suggest quality and acceptable massage products 	

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TECHNOLOGY AND LIVELIHOOD EDUCATION
HOME ECONOMICS – WELLNESS MASSAGE**

GLOSSARY

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
HOME ECONOMICS – WELLNESS MESSAGE**

CODE BOOK LEGEND

Sample: TLE_HEWM10WP-Ia-j-1

LEGEND		SAMPLE	
First Entry	Learning Area and Strand/ Subject or Specialization	Technology and Livelihood Education_Home Economics Wellness Massage	TLE_HE WM 10
	Grade Level	Grade 10	
Uppercase Letter/s	Domain/Content/ Component/ Topic	Plan The Wellness Program Of Client/s	WP
			-
Roman Numeral <i>*Zero if no specific quarter</i>	Quarter	First Quarter	I
Lowercase Letter/s <i>*Put a hyphen (-) in between letters to indicate more than a specific week</i>	Week	Week One to Ten	a-j
			-
Arabic Number	Competency	Assess/Interview client	1

DOMAIN/ COMPONENT	CODE
Personal Entrepreneurial Competencies	PECS
Environment and Market	EM
Plan The Wellness Program Of Client/s	WP
Provide Pre-Service To Wellness Massage Client/S	WC
Apply Wellness Massage Techniques	WT
Post-advice and Post-services to Clients	AS



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K to 12 BASIC EDUCATION CURRICULUM

TECHNOLOGY AND LIVELIHOOD EDUCATION

CURRICULUM GUIDE

Exploratory Course on

BREAD AND PASTRY PRODUCTION

K to 12 TECHNOLOGY AND LIVELIHOOD EDUCATION
HOME ECONOMIC – BREAD AND PASTRY PRODUCTION
(Exploratory)

TABLE OF CONTENTS

Curriculum Guide for the Exploratory Course on Bread and Pastry Production

For you to get a complete picture of the complete TLE exploratory course on Bread and Pastry Production, you are hereby provided with the Curriculum Guide on Bread and Pastry Production.

Content Standard	Performance Standard	Learning Competencies	Project/ Activities	Assessment	Duration
LESSON 1: USE OF TOOLS AND BAKERY EQUIPMENT					
<i>Demonstrate understanding of/on:</i> <ul style="list-style-type: none"> • Baking tools and equipment, their uses • Classification of tools and equipment 	1. Baking tools and equipment are identified based on their uses.	LO1. Prepare tools and equipment for specific baking purposes.	1. Familiarizing and classifying different baking tools and equipment and their uses. 2. Operate an oven	<ul style="list-style-type: none"> • Written Test • Performance on the classification of tools 	4 hours

K to 12 TECHNOLOGY AND LIVELIHOOD EDUCATION

**HOME ECONOMIC – BREAD AND PASTRY PRODUCTION
(Exploratory)**

Content Standard	Performance Standard	Learning Competencies	Project/ Activities	Assessment	Duration
LESSON 2: PERFORM MENSURATION AND CALCULATION					
<p><i>Demonstrate understanding of/on:</i></p> <ul style="list-style-type: none"> Standard table of weights and measures 	Standard table of weights and measures are identified and applied.	LO1.Familiarize oneself with the table of weights and measures in baking		Written examination	2hours
<ul style="list-style-type: none"> Conversion/ substitution of weights and measure 	Accurate conversion/ substitution of weights and measures are performed.	LO2. Apply basic mathematical operations in calculating weights and measures.	1. Calculating of ingredients using fundamental operations.	Performance conversion of weights and measures	2hours
<ul style="list-style-type: none"> Proper measuring of ingredients 	1. Reading of measurements is practiced with accuracy.	LO3. Measure dry and liquid ingredients accurately	1. Performing the proper measuring of liquid and dry ingredients	<ul style="list-style-type: none"> Demonstration 	4 hours

K to 12 TECHNOLOGY AND LIVELIHOOD EDUCATION

**HOME ECONOMIC – BREAD AND PASTRY PRODUCTION
(Exploratory)**

Content Standard	Performance Standard	Learning Competencies	Project/ Activities	Assessment	Duration
LESSON 3: MAINTAIN OF TOOLS AND EQUIPMENT					
<p><i>Demonstrate understanding of/on:</i></p> <ul style="list-style-type: none"> Classification of functional and non-functional tools 	<ol style="list-style-type: none"> Tools and equipment are identified according to classification/specification and job requirements. Non-functional tools and equipment are segregated and labeled according to classification. Safety of tools and equipment are observed in accordance with manufacturer's instructions. 	<p>LO1. Check condition of tools and equipment.</p>	<ol style="list-style-type: none"> Testing for the accuracy, functionality, and usefulness of the delivered tools and materials. Classifying functional and non-functional tools and equipment and repairing of defective tools. 	<ul style="list-style-type: none"> Direct observation Written test 	<p>4 hours</p>
<ul style="list-style-type: none"> Types and uses of cleaning materials / disinfectants Preventive maintenance techniques and procedures. Occupational Health and Safety Center 	<ol style="list-style-type: none"> Tools and equipment are maintained according to preventive maintenance schedule or manufacturer's specifications. Tools are cleaned in accordance with standard procedures. 	<p>LO2. Perform basic preventive maintenance.</p>	<ol style="list-style-type: none"> Practicing the proper cleaning of tools 	<ul style="list-style-type: none"> Direct observation Written test 	<p>4 hours</p>

K to 12 TECHNOLOGY AND LIVELIHOOD EDUCATION

**HOME ECONOMIC – BREAD AND PASTRY PRODUCTION
(Exploratory)**

Content Standard	Performance Standard	Learning Competencies	Project/ Activities	Assessment	Duration
(OSHC) workplace regulations	3. Work place is cleaned and kept in safe state in line with OSHC regulations.				
<ul style="list-style-type: none"> • Proper storage of tools and equipment 	Tools and equipment are stored in safely accordance with manufacturer’s specifications or company procedures.	LO3. Store tools and equipment	1. Storing, safe keeping, and labeling of tools and equipment based on manufacturer’s requirements.	<ul style="list-style-type: none"> • Written test /questioning • Performance test 	4 hours

K to 12 TECHNOLOGY AND LIVELIHOOD EDUCATION

**HOME ECONOMIC – BREAD AND PASTRY PRODUCTION
(Exploratory)**

Content Standard	Performance Standard	Learning Competencies	Project/ Activities	Assessment	Duration
LESSON 4: PRACTICE OCCUPATIONAL HEALTH AND SAFETY PROCEDURES					
<p><i>Demonstrate understanding of/on:</i></p> <ul style="list-style-type: none"> • Hazards and risks identification and control • Occupational Health and Safety (OHS) indicators • Personal hygiene and proper hand washing 	<ol style="list-style-type: none"> 1. Workplace hazards and risks are identified and clearly explained. 2. Hazards/Risks and their corresponding indicators are identified in line with company procedures. 3. Contingency measures are recognized and established in accordance with organizational procedures. 	<p>LO1. Identify hazards and risks</p>	<ol style="list-style-type: none"> 1. PowerPoint presentation on hazards and risks. 2. Making posters of warning signs on dangerous and risky areas. 3. Labeling toxic chemicals and their safe keeping. 	<p>Written test</p>	<p>4 hours</p>

K to 12 TECHNOLOGY AND LIVELIHOOD EDUCATION

**HOME ECONOMIC – BREAD AND PASTRY PRODUCTION
(Exploratory)**

Content Standard	Performance Standard	Learning Competencies	Project/ Activities	Assessment	Duration
<ul style="list-style-type: none"> • Philippine OHS Standards • Effects of hazards in the workplace 	<ol style="list-style-type: none"> 1. Effects of hazards are determined. 2. OHS issues and concerns are identified in accordance with workplace requirements and relevant workplace OHS legislation. 	LO2. Evaluate hazards and risks	<ol style="list-style-type: none"> 1. Film viewing on the effects of hazard risks. 2. Visiting people in the workplace and interviewing personnel. 	Written examination	4 hours
<ul style="list-style-type: none"> • Safety Regulations • Clean Air Act • Electrical and Fire Safety Code • Waste management • Contingency Measures and Procedures 	<ol style="list-style-type: none"> 1. In dealing with workplace accidents, fire and emergencies are followed in accordance with the organization's OHS policies. 2. Personal protective equipment for controlling hazards is correctly used in accordance with organization's OHS procedures and risks are strictly followed. 	LO3. Control hazards and risks	<ol style="list-style-type: none"> 1. Familiarizing oneself with the locations of emergency or fire exits and first aid kit. 2. Showing the proper use of Personal Protective Equipment (PPE). 3. Practicing proper segregation techniques 	Written Test	4 hours

K to 12 TECHNOLOGY AND LIVELIHOOD EDUCATION

**HOME ECONOMIC – BREAD AND PASTRY PRODUCTION
(Exploratory)**

Content Standard	Performance Standard	Learning Competencies	Project/ Activities	Assessment	Duration
<ul style="list-style-type: none"> Operational health and safety procedure, practices and regulations Emergency-related drills and training 	<ol style="list-style-type: none"> Procedures in emergency related drill are strictly followed in line with the established organization guidelines and procedures. OHS personal records are filled up in accordance with workplace requirements. 	LO4. Maintain occupational health and safety awareness	<ol style="list-style-type: none"> Emergency drills on fire and earthquakes and performing first aid measures on hazards. Simulation in giving first aid 	Written examination	4 hours
					40 hours

“By three methods we may learn wisdom: First, by reflection, which is noblest; second, by imitation, which is easiest; and third by experience, which is the bitterest.”

- Confucius



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K to 12 BASIC EDUCATION CURRICULUM

TECHNOLOGY AND LIVELIHOOD EDUCATION

CURRICULUM GUIDE

Exploratory Course on

BEAUTY CARE (NAIL CARE) SERVICES

K to 12 TECHNOLOGY AND LIVELIHOOD EDUCATION

**HOME ECONOMICS – BEAUTY CARE (NAIL CARE) SERVICES
(Exploratory)**

Curriculum Guide for the Exploratory Course on Beauty Care (Nail Care) Services

For you to get a complete picture of the complete TLE exploratory course on Beauty Care (Nail Care) Services, you are hereby provided with the Curriculum Guide on Beauty Care (Nail Care) Services.

Content Standard	Performance Standard	Learning Competencies	Project/ Activities	Assessment	Duration
LESSON 1: USE OF NAIL CARE TOOLS AND EQUIPMENT					
<p><i>Demonstrate understanding on:</i></p> <ul style="list-style-type: none"> Nail care tools and equipment 	<ol style="list-style-type: none"> Tools and equipment are prepared based on salon procedure and policies. Tools and equipment are identified and checked according to task requirements. 	<p>LO1. Prepare the necessary tools and equipment for the specific nail care activity.</p>	<ul style="list-style-type: none"> Identify different tools and equipment according to task requirement. Prepare the necessary tools, materials and equipment for the specific nail care services. 	<ul style="list-style-type: none"> Performance test Written examination 	3 hrs.
<ul style="list-style-type: none"> Uses of nail care tools and equipment 	<ol style="list-style-type: none"> Tools and equipment are used according to task requirements. Safety procedure of using tools and equipment are observed. 	<p>LO2. Use nail care tools and equipment.</p>	<ul style="list-style-type: none"> Demonstrate the proper use of nail care tools and equipment. 	<ul style="list-style-type: none"> Written test Performance test 	4 hrs.
LESSON 2 : MAINTAIN TOOLS AND EQUIPMENT					
<p>Demonstrate understanding</p> <p>1. Procedures for sterilization and sanitation of nail care tools and equipment</p>	<p>1. Procedures for sterilization and sanitation of nail care tools and equipment are followed</p>	<p>LO1. Check condition of nail care tools and</p>	<ul style="list-style-type: none"> Practical application on the proper handling and care of tools and equipment 	<ul style="list-style-type: none"> Performance test Written test 	3 hrs.

K to 12 TECHNOLOGY AND LIVELIHOOD EDUCATION

**HOME ECONOMICS – BEAUTY CARE (NAIL CARE) SERVICES
(Exploratory)**

Content Standard	Performance Standard	Learning Competencies	Project/ Activities	Assessment	Duration
<p>2. Classification of functional and non functional tools and equipment</p> <p>3. Safekeeping and storage of tools and equipment</p> <p>4. PPE</p>	<p>2. Non- functional tools and equipment are segregated and labeled according to classification</p> <p>3. Tools and equipment are safely stored in accordance with salon requirements and local health regulations</p> <p>4. Conditions of PPE are checked in accordance with manufacturer's instruction</p>	<p>equipment</p>	<p>through group activities</p>		
<p>1. Safekeeping of equipment and tools</p> <p>2. Preventive maintenance technique and procedures</p> <p>3. OHS workplace regulations</p>	<p>1. Nail care tools and equipment are identified</p> <p>2. Appropriate cleaning procedure of nail care tools and equipment are applied.</p> <p>3. Tools are cleaned according to standard procedures.</p> <p>4. Defective equipment and tools are inspected and replaced according to manufacturer's specification.</p> <p>5. Workplace is cleaned and kept in safe state in line with OHS regulations</p>	<p>LO2. Perform basic preventive and corrective maintenance</p>	<p>Activity 1</p> <p>Practical demonstration of proper way of keeping the workplace clean and safe to individual clients</p> <p>Student's demonstration on sanitizing equipment and implements</p>	<ul style="list-style-type: none"> • Written test • Performance test 	<p>3 hrs.</p>

K to 12 TECHNOLOGY AND LIVELIHOOD EDUCATION

**HOME ECONOMICS – BEAUTY CARE (NAIL CARE) SERVICES
(Exploratory)**

Content Standard	Performance Standard	Learning Competencies	Project/ Activities	Assessment	Duration
1 Inventory of tools and equipment 2. Tool safekeeping/storage	1.Inventory of tools, instruments and equipment are conducted and recorded per salon practices. 2 .Tools and equipment are stored safely in accordance with manufacturer’s specifications or salon procedure.	LO3.Store nail care tools and equipment	Demonstration of the proper way of storing tools and equipment Group activity showing the inventory procedure in a simulated workplace.	Performance test Written tests.	4 hrs
LESSON 3: PRACTICE OCCUPATIONAL HEALTH AND SAFETY PROCEDURES					
<i>Demonstrate understanding :</i> • Hazards and Risks Common in Beauty salons	1. Work place hazards and risks are identified and clearly explained. 2. Hazards and risks and its corresponding indicators are identified in the workplace. 3. Effects of hazards are determined.	LO1.Identify hazards and risks.	Venn Diagram Hazard Recognition Activity.	• Written examination • Performance test	4hrs
• Common workplace hazards and their control measures ➤ Electricity ➤ Chemical hazard ➤ Slips, Trips, Falls ➤ Fire hazard ➤ Manual handling ➤ Biological hazard	1. Terms of maximum tolerable limits are identified based on threshold limit values (TLV). 2. Effects of hazards are determined. 3. OHS issues and concerns are identified in accordance with workplace requirements 4. Sets of personal clothing	LO2. Evaluate and control hazards and risks	• Interview • Film clips	• Written examination • Performance Evaluation	6 hrs

K to 12 TECHNOLOGY AND LIVELIHOOD EDUCATION

**HOME ECONOMICS – BEAUTY CARE (NAIL CARE) SERVICES
(Exploratory)**

Content Standard	Performance Standard	Learning Competencies	Project/ Activities	Assessment	Duration
➤ Ergonomics hazards	equipment are used				
LESSON 4: PRACTICE BASIC NAIL DESIGNS					
<p><i>Demonstrate understanding on:</i></p> <ul style="list-style-type: none"> Structures of nail Nail shapes Nail disorders and diseases 	<ol style="list-style-type: none"> Nail structure and shapes are identified Nails are trimmed and varied shapes are applied; Nail disorders and diseases are identified 	LO1. Identify nail structure , shapes and nail diseases / disorders .	<ul style="list-style-type: none"> Trimming nails applying the different basic nail shape 	<ul style="list-style-type: none"> Written test 	3 hrs.
<ul style="list-style-type: none"> Basic nail designs 	<ul style="list-style-type: none"> Different nail designs are explained and demonstrated thru visuals. Different basic nail designs are demonstrated in mock nails 	LO2. Create basic nail designs.	Project making - Basic nail designs in mock nails	<ul style="list-style-type: none"> Performance test Written test 	10 hrs

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K to 12 BASIC EDUCATION CURRICULUM

TECHNOLOGY AND LIVELIHOOD EDUCATION

CURRICULUM GUIDE

Exploratory Course on

DRESSMAKING / TAILORING

K to 12 TECHNOLOGY AND LIVELIHOOD EDUCATION

**HOME ECONOMICS – DRESSMAKING / TAILORING
(Exploratory)**

Curriculum Guide for the Exploratory Course on DRESSMAKING /TAILORING

For you to get a complete picture of the complete TLE exploratory course on Dressmaking / Tailoring, you are hereby provided with the Curriculum Guide on Dressmaking / Tailoring.

Content Standard	Performance Standard	Learning Competencies	Project / Activities	Assessment	Duration
LESSON 1: USE OF SEWING TOOLS					
<p><i>Demonstrate understanding of/on:</i></p> <ol style="list-style-type: none"> 1. Sewing tools and equipment and their functions 2. Classifying the types of sewing machines and their uses 	<ol style="list-style-type: none"> 1. Sewing tools and equipment are identified 2. Types of sewing machines are classified and their uses are identified 	LO1. Identify sewing tools and equipment and their uses	<ol style="list-style-type: none"> 1. Producing a sewing kit and compiling the tools and supplies properly 2. Students will visit 2 or more dress/tailoring shop and analyze and classify the different sewing tools 	<ul style="list-style-type: none"> • Written Test • Performance test 	3 hours
LESSON 2: CARRY OUT MEASUREMENTS AND CALCULATIONS					
<p><i>Demonstrate understanding of/on:</i></p> <ol style="list-style-type: none"> 1. Body measurements in ladies and men’s apparel 	<ol style="list-style-type: none"> 1. Parts of the body are measured 2. Appropriate measuring tools are selected for job. 3. Reading of measurements is 	LO1. Obtain measurements	<ol style="list-style-type: none"> 1. Using a tape measure, get the length and width of a cloth to be used in making a table 	<ul style="list-style-type: none"> • Written examination • Demonstration 	4 hours

K to 12 TECHNOLOGY AND LIVELIHOOD EDUCATION

**HOME ECONOMICS – DRESSMAKING / TAILORING
(Exploratory)**

Content Standard	Performance Standard	Learning Competencies	Project / Activities	Assessment	Duration
	practiced with accuracy. 4. Accurate measurements are obtained.		napkin 2. Taking body measurement needed for ladies/ men's apparel		
1. Metric conversion chart	1. English and Metric systems of measurement are identified and applied. 2. Simple calculations are performed based on the job requirement. 3. Reading of measurements is practiced with accuracy.	LO2. Perform simple calculations.	1. Students will take and record body measurements of client, gathered measurements will be converted to centimeters	<ul style="list-style-type: none"> • Written examination • Performance test 	4 hours
1. Estimate appropriate quantities	1. Reading of measurement is practiced with accuracy 2. The fundamentals of arithmetic operations are practiced with accuracy 3. Cost of project materials are estimated based on current price	LO3. Estimate appropriate quantities	1. Calculating materials needed in a certain suggested project	<ul style="list-style-type: none"> • Written examination • Performance test 	2 hours
LESSON 3: CREATE DESIGN FOR A SIMPLE PROJECT					
<i>Demonstrate understanding of/on:</i> 1. Principles of design 2. Color theory	1. Design for a simple project is sketched applying the principles of design and applying the color harmonies.	LO1. Sketch simple project design	1. Sketching a design for a pocket sewing tools organizer with different types of patch pockets.	<ul style="list-style-type: none"> • Written Examination • Performance test 	4 hours

K to 12 TECHNOLOGY AND LIVELIHOOD EDUCATION

**HOME ECONOMICS – DRESSMAKING / TAILORING
(Exploratory)**

Content Standard	Performance Standard	Learning Competencies	Project / Activities	Assessment	Duration
1. Basic hand stitches	1. Project produced in accordance to the specifications of designs	LO2. Produce simple project	<ol style="list-style-type: none"> 1. Creating patch pockets 2. Making a pocket sewing tools organizer with different types of patch pockets and labeled with basic hand stitches. 3. Sew an apron with creative patchwork 	<ul style="list-style-type: none"> • Demonstration • Written Examination 	6 hours
LESSON 4: PERFORM BASIC MAINTENANCE					
<p><i>Demonstrate understanding of/on:</i></p> <ol style="list-style-type: none"> 1. Machine operation <ul style="list-style-type: none"> • Lower and upper threading of sewing machine • Common sewing machine troubles and its remedies • Quality of stitches and tensions 2. Sewing machine and its troubles and remedies 	<ol style="list-style-type: none"> 1. Proper handling of machine is observed. 2. Correct procedures in machine operation are identified. 3. Common machine troubles are resolved. 	LO1. Operate machine and assess its performance	<ol style="list-style-type: none"> 1. Making sample runs (straight and circular lines) 2. Assess a sewing machine 	<ul style="list-style-type: none"> • Written examination • Performance test 	5hours
1. Care of Sewing Machine	<ol style="list-style-type: none"> 1. Regular cleaning of machine is observed 2. Safety procedures in machine cleaning are followed. 3. Regular maintenance 	LO2. Clean and lubricate machine	<ol style="list-style-type: none"> 1. Cleaning and lubricating sewing machines and other tools like pair of scissors, 	<ul style="list-style-type: none"> • Written examination • Observation 	5hours

K to 12 TECHNOLOGY AND LIVELIHOOD EDUCATION

**HOME ECONOMICS – DRESSMAKING / TAILORING
(Exploratory)**

Content Standard	Performance Standard	Learning Competencies	Project / Activities	Assessment	Duration
	schedules are observed and recorded.		shears and others.		
LESSON 5: PRACTICE OCCUPATIONAL SAFETY AND HEALTH					
<i>Demonstrate understanding of:</i> 1. Hazards and risks identification and control	1. Workplace hazards and risks are identified and clearly explained.	LO1. Identify and evaluate hazards and risks	1. Poster making on hazards and risks	<ul style="list-style-type: none"> • Situation analysis • Practical examination • Written examination 	1 hours
1. Organizational safety and health protocol 2. Contingency measures and procedures	1. Occupational Health and Safety (OHS) procedures for controlling hazards and risk are strictly followed.	LO2. Control hazards and risks	1. Conduct an interview in school or in the community who has a specific responsibility for safety	<ul style="list-style-type: none"> • Written examination 	2hours
					40 hours

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- Confucius



Agri-Fishery Arts

- Agri-Crop Production
- Animal Production
- Aquaculture
- Horticulture
- Fish Processing

AGRICULTURE AND FISHERY ARTS CURRICULUM MAP

No.	Grade 7/8 (Exploratory)	Grade 9	Grade 10	Grade 11	Grade 12	
1	EXPLORATORY COVERING COMMON COMPETENCIES	Crop Production (NC I)		*Landscape Installation and Maintenance (NC II)		
2				*Pest Management (NC II)		
3				*Rice Machinery Operation (NC II)		
4				*Organic Agriculture (NC II)		
5						
6		Animal Production (NC II)		*Artificial Insemination: Swine (NC II)		
7				*Artificial Insemination: Ruminants (NC II)		
8				*Slaughtering Operation (NC II)		
9						
10		Horticulture (NC II)				
11		Food (Fish) Processing (NC II)				
12		Aquaculture (NC II)			*Fish Nursery Operation (NC II)	
13					*Fish or Shrimps Grow Out Operation (Non NC)	
				*Fish Wharf Operation (NC I)		

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



Agri-Crop Production

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
AGRI – FISHERY ARTS – AGRI – CROP PRODUCTION
Grade 7/8 (Exploratory)**

Course Description:

This Module is an exploratory and introductory course which leads to **Agricultural Crop Production** National Certificate Level II (**NC II**). It covers **four** common competencies that a Grade 7/Grade 8 Technology and Livelihood Education (TLE) student ought to possess: 1) using tools, equipment and paraphernalia; 2) performing mensuration and calculation; 3) practicing **Occupational Health and Safety (OHS)** procedures; and 4) interpreting technical drawing and plans.

The preliminaries of this exploratory 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 1. Basic concepts in agricultural crop production 2. Relevance of the course 3. Career opportunities	The learner demonstrates an understanding of basic concepts and underlying theories in agricultural crop production.	The learner independently demonstrates common competencies in agricultural crop production as prescribed by TESDA Training Regulations.	1. Explain basic concepts in agricultural crop production 2. Discuss the relevance of the course 3. Explore career opportunities in agricultural crop production	
PERSONAL ENTREPRENEURIAL COMPETENCIES (PECS)				
1. Assessment of Personal Competencies and Skills (PeCS) vis-à-vis PeCs of a practicing entrepreneur/employee: 1.1. Characteristics 1.2. Attributes 1.3. Lifestyle 1.4. Skills 1.5. Traits 2. Analysis of learner's PeCS in relation to those of a practicing entrepreneur/employee	The learner demonstrates an understanding of one's Personal Competencies and Skills (PeCS)	The learner recognizes his/her Personal Competencies and Skills (PeCS) and is able to compare these with the PeCS of a practicing entrepreneur/ employee involved in agricultural crop production	LO 1. Recognize Personal Competencies and Skills (PeCS) needed in agricultural crop production 1.1. Identify and assess one's PeCS 1.2. Identify and assess a practitioner's PeCS 1.3. Compare self with a practicing entrepreneur/employee 1.4. Identify areas for improvement, development and growth	TLE_PECS7/8-00-1

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
LESSON 1: USE OF FARM TOOLS AND EQUIPMENT AND MAINTENANCE (UT)				
1. Farm tools 2. Defects and remedies 3. Farm tools safety 4. Manual of farm equipment and specification 5. Parts and functions of equipment 6. Pre-operation check-up 7. Safety practice during operation of farm equipment 8. Preventive maintenance 9. Regular maintenance of equipment	The learner demonstrates an understanding of concepts, underlying theories and principles in the use of farm tools and equipment.	The learner uses farm tools and equipment in agricultural crop production.	LO 1. Select and use farm tools 1.1. Identify farm tools according to use 1.2. Check farm tools for faults 1.3. Use appropriate tools for the job requirement according to manufacturer's specifications and instructions	TLE_AFAC7/8UT-0a-1
			LO 2. Select farm equipment 2.1. Identify appropriate farm equipment 2.2. Follow the guidelines in the instructional manual of farm equipment 2.3. Conduct pre-operation check-up in line with the manufacturer's manual 2.4. Identify faults in farm equipment and facilities 2.5. Use farm equipment according to their function	TLE_AFAC7/8UT-0b-2
			LO 3. Perform preventive maintenance 3.1. Clean tools and equipment after use in line with farm procedures 3.2. Perform routine check-up and maintenance 3.3. Follow procedures in sharpening and oiling farm tools and equipment	TLE_AFAC7/8MT-0c-3

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
LESSON 2: PERFORM ESTIMATION AND BASIC CALCULATION (MC)				
1. Farm inputs 2. Labor requirement 3. Estimating farm inputs and labor requirements 4. Perform calculation 5. System of measurement 6. Units of measurement 7. Conversion of units 8. Fraction and decimals 9. Percentage and ratio	The learner demonstrates an understanding of estimation and basic calculation.	The learner accurately performs estimation and basic calculation.	LO 1. Perform estimation 1.1. Identify job requirement from written and oral communications 1.2. Estimate the quantity of materials and resources required to complete a work/ task 1.3. Estimate time needed to complete a work/activity 1.4. Calculate the duration of work completion 1.5. Follow procedures in reporting to appropriate persons the estimate of materials and resources	TLE_AFAC7/8MC-0d-4
			LO 2. Perform basic workplace calculation 2.1. Identify calculations to be done according to the job requirement 2.2. Determine correct methods of calculation 2.3. Ascertain systems and units of measurement to be followed 2.4. Perform calculations needed to complete a task using the four basic mathematical operations 2.5. Employ different techniques in checking accuracy of result 2.6. Use appropriate operations to comply with the job requirement	TLE_AFAC7/8MC-0e-5

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
LESSON 3: INTERPRET PLANS AND DRAWINGS (ID)				
1. Farm plans and layout 2. Planting system 3. Farm layout 4. Government plans 5. Crops arrangement 6. Layout plan of irrigation system 7. Types of irrigation systems 8. Essential features of a plan 9. Different designs of irrigation system	The learner demonstrates an understanding of interpreting plans and drawings.	The learner interprets plans and drawings relative to agricultural crop production.	LO 1. Layout garden plots 1.1. Design farm plans and layouts according to crop grown 1.2. Follow strictly planting system and practices according to approved cultural practices 1.3. Interpret irrigation system plan according to established procedures 1.4. Differentiate designs of irrigation systems	TLE_AFAC7/8ID-0f-g-6
LESSON 4: APPLY SAFETY MEASURES IN FARM OPERATIONS (OS)				
1. Applying safety measures 2. Hazards, risks and exposure in the farm 3. Chemicals 4. Personal protective equipment (PPE) 5. Basic first aid 6. Farm emergency 7. Cleaning, storing and waste management 8. Procedure and technique in storing materials and chemicals 9. Government requirement regarding farm waste disposal 10. Water management system	The learner demonstrates an understanding of applying safety measures in the farm.	The learner consistently applies safety measures in the farm.	LO 1. Apply appropriate safety measures while working in farm 1.1. Apply safety measures based on work requirement and farm procedures 1.2. Utilize tools and materials in accordance with farm requirements 1.3. Explain the importance of wearing work outfit in accordance with farm requirements 1.4. Check shelf life and/or expiration of materials and supplies against manufacturer's specifications 1.5. Identify risks and hazards in the workplace and report them in accordance with farm guidelines	TLE_AFAC7/8OS-0h-i-7

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			<p>LO 2. Safely keep/dispose tools, materials and outfit</p> <p>2.1. Observe procedures in cleaning used outfits in line with farm procedure before storing</p> <p>2.2. Follow the guidelines in labeling unused materials to be stored according to manufacturer's recommendation and farm requirements.</p> <p>2.3. Dispose waste materials according to manufacturer's, government and farm requirements</p>	<p>TLE_AFAC7/8OS-0j-8</p>

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
AGRI – FISHERY ARTS – AGRI – CROP PRODUCTION
Grade 9 (Specialization)**

Course Description:

This module covers the skills and knowledge required to support **horticultural** and **nursery** production under supervision. It requires the ability to prepare materials, tools and equipment for horticultural production and nursery work practices; ensure hygiene and quality control; undertake routine production assistance work; handle materials and equipment; and perform thorough cleanups upon completion of the work. Supporting horticultural and nursery production work requires knowledge of safe work practices relating to (1) basic crop and nursery plant maintenance activities (2) basic stock control procedures (3) **propagation** and **handling** techniques—including planting, maintaining, picking and packing, loading and unloading, and (4) using associated farm tools and equipment.

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<p>Introduction</p> <ol style="list-style-type: none"> 1. Support agricultural crop work 2. Support nursery work 3. Career opportunities 	The learner demonstrates an understanding of concepts, principles, underlying theories, and actual application in crop production and nursery work.	The learner independently demonstrates common competencies in crop production and nursery work as prescribed by TESDA Training Regulations.	<ol style="list-style-type: none"> 1. Explain the cultural methods and practices in crop production 2. Formulate adaptive cultural practices in the care and maintenance of a school nursery 3. Explore career opportunities in agricultural crop production 	
PERSONAL ENTREPRENEURIAL COMPETENCIES (PeCS)				
<ol style="list-style-type: none"> 1. Assessment of Personal Competencies and Skills (PeCS) vis-à-vis PeCS of a practicing entrepreneur/employee in the town. <ol style="list-style-type: none"> 1.1. Characteristics 1.2. Attributes 1.3. Lifestyle 1.4. Skills 1.5. Traits 2. Analysis of PeCS in relation to those of a practicing entrepreneur/employee 3. Align, strengthen and develop ones PeCS based on the results 	The learner demonstrates an understanding of one's Personal Competencies and Skills (PeCS) and what it takes to become successful in the field.	The learner recognizes his/her Personal Competencies and Skills (PeCS) and is able to compare these with the PeCS of a practicing entrepreneur/ employee involved in the Agricultural Crop Production.	<p>LO 1. Develop and strengthen Personal Competencies and Skills (PeCS) needed in agricultural crop production</p> <ol style="list-style-type: none"> 1.1. Identify and assess one's PeCS: characteristics, attributes, lifestyle, skills, traits 1.2. Identify successful entrepreneurs/ employees in the town 1.3. Identify and assess a practitioner's PeCS: characteristics, attributes, lifestyle, skills, traits 1.4. Compare self with a practitioner. 1.5. Identify areas for improvement, development and growth 1.6. Align, strengthen, develop areas based on the results of the PeCS 	TLE_PECS9-00-1

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			Assessment	
ENVIRONMENT AND MARKET (EM)				
THE MARKET (The Town) 1. Key concepts of the Market 2. Players in the Market (Competitors) 3. Products and services available in the market	The learner demonstrates an understanding of the market of agricultural crop production from the context of the town.	The learner independently identifies the products/services available and the competitors within the agricultural crop production market from the context of the town.	LO 1. Recognize and understand the market for agricultural crop production 1.1. Identify the players/ competitors within the town 1.2. Identify the different products/services available in the market 1.3. Enumerate the differences between these products/ services	TLE_EM9-I0-1
THE MARKET – CUSTOMER 1. Key concepts in identifying and understanding the Consumer 2. Consumer analysis through: 2.1. observation 2.2. interviews 2.3. FGDs (Focused Group Discussions) 2.4. Surveys	The learner demonstrates an understanding of the customers of agricultural crop production.	The learner independently identifies the customers in the agricultural crop production market.	LO 2. Recognize the customers of the agricultural crop production market 2.1. Identify the different customers of the market 2.2. Identify the customer’s needs and wants through consumer analysis 2.3. Conduct observation exercises, interviews, FGDs and surveys	TLE_EM9-II0-2
THE MARKET - GENERATING BUSINESS IDEAS 1. Key concepts in generating business ideas 2. Knowledge, skills, passions, and interests 3. New applications 4. Irritants	The learner demonstrates an understanding of the techniques of generating business ideas.	The learner independently generates business ideas using the various techniques available.	LO 3. Create new business ideas using the various techniques and based on the analyses of the market for Agricultural Crop Production. 3.1. Generate business ideas using knowledge, skills, passions, and interests 3.2. Generate business ideas using new applications (finding new use for existing products/materials) 3.3. Generate business ideas from	TLE_EM9-III0-3

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			one's Irritants	
<p>THE MARKET - GENERATING BUSINESS IDEAS</p> <ol style="list-style-type: none"> 1. Key concepts in generating business Ideas 2. Striking ideas (new concepts) 3. Serendipity Walk 	The learner demonstrates an understanding of the techniques of generating business ideas.	The learner independently generates business ideas using the various techniques available.	<p>LO 4. Create new business ideas using the various techniques based on the analyses of the market for Agricultural Crop Production</p> <ol style="list-style-type: none"> 4.1. Generate business ideas based on striking Ideas 4.2. Generate business ideas using the Serendipity Walk 	TLE_EM9-IV0-4
<p>QUARTER 1 and 2 LESSON 1. SUPPORT HORTICULTURAL WORK (HC) <i>(Note: Research component should be included in the activities)</i></p>				
<ol style="list-style-type: none"> 1. Types and selection of materials, tools, and equipment 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, risks and its control 	The learner demonstrates an understanding of concepts, underlying theories and principles in the preparation of farm materials, tools and equipment and occasional health and safety operations in crop production.	The learner uses farm materials, tools, and equipment and applies occupational health and safety practices in crop production.	<p>LO 1. Prepare materials, tools and equipment for horticultural production work</p> <ol style="list-style-type: none"> 1.1. Identify the required materials, tools and equipment according to lists provided and/or teacher's/supervisor's instructions 1.2. Check farm tools, materials and equipment for faults and defects based on manufacturer's lists and pre-operating procedures 1.3. Demonstrate the correct manual handling procedures and techniques when loading and unloading materials to minimize damage to the load and vehicle 1.4. Select and check the suitable personal protective equipment (PPE), as required by the job 1.5. Provide the work support in accordance with OHS requirements and the workplace information 	TLE_AFAC9HC-Ia-e-1

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			1.6. Identify OHS hazards and file a report based on OHS requirements and company reporting procedures	
1. Common horticultural production work 2. Safe work practices 3. Proper use of horticultural tools and equipment 4. Procedures for land preparation, sowing/planting, crop maintenance, fertilization, loading and unloading, harvesting/picking, sorting and packing 5. Planting, picking, packing, loading and transporting techniques 6. Environmental aspects of horticultural production work 7. Interpersonal relationships and communication (oral and written)			LO 2. Undertake horticultural production work as directed 2.1. Follow and clarify instructions and directions based on authority requirements and workplace procedures 2.2. Undertake work in a safe and environmentally-sound manner according to enterprise guidelines 2.3. Interact with other staff and customers in a positive and professional manner as specified in the employee manual 2.4. Observe workplace practices, handling and disposal of materials following enterprise policy and procedures 2.5. Report problems or difficulties in completing work to required standards or timelines to authority based on company reporting procedures	TLE_AFAC9HC-If-j-2
1. Proper use/handling of materials and equipment 2. Storage practices and principles for materials and equipment 3. Waste materials management 4. Occupational health and safety procedures 5. Routine maintenance of			LO 3. Handle materials and equipment 3.1. Store waste material in a designated area according to workplace procedure/OHS procedure 3.2. Handle and transport materials, equipment and machinery according to enterprise guidelines	TLE_AFAC9HC-IIa-e-3

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
workplace			3.3. Maintain a clean and safe work site while working in accordance with OHS procedures	
1. Procedures for storage of excess materials 2. Procedures for disposal of waste materials 3. Routine cleaning, maintenance and storage of tools and equipment 4. Report preparation of work outcomes			LO 4. Cleanup on completion of work 4.1. Return materials to store or dispose of according to company standard procedures 4.2. Clean, maintain and store tools and equipment according to manufacturers' specifications 4.3. Report work outcomes to the authority following established reporting formats	TLE_AFAC9HC-IIf-j-4
Quarter 3 and 4 LESSON 2: SUPPORT NURSERY WORK (NW) <i>(Note: Research component should be included in the activities)</i>				
1. Types and selection of materials, tools, and equipment appropriate to nursery 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 concepts, underlying theories and principles in nursery work.	The learner uses farm materials, tools and equipment for nursery work.	LO 1. Prepare materials, tools and equipment for nursery work 1.1. Identify the required materials, tools and equipment based on lists provided and/or authority's instructions 1.2. Check the materials, tools and equipment based on manufacturer's lists and pre-operating procedures and report those with insufficient or faulty items to the authority 1.3. Demonstrate correct manual handling procedures and techniques when loading and unloading materials to minimize damage to the load and vehicle 1.4. Select and check the suitable personal protective equipment	TLE_AFAC9NW-IIIa-e-1

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			(PPE), as required by the job 1.5. Provide nursery support according to OHS requirements and workplace information 1.6. Identify and report OHS hazards to the authority based on OHS requirements and company reporting procedures	
1. Common nursery work 2. Safe work practices 3. Proper use of nursery tools and equipment 4. Nursery hygiene and quality control 5. Nursery plant maintenance activities 6. Propagation techniques 7. Environmental aspects of nursery work 8. OHS legislative requirements and codes of practice 9. Interpersonal relationships and communication (oral and written)			LO 2. Undertake nursery work as directed 2.1. Follow and clarify instructions and directions based on authority requirements and workplace procedures 2.2. Undertake nursery work in a safe, appropriate and environmentally-sound manner according to nursery guidelines 2.3. Interact with other staff and customers in a positive and professional manner as specified in the employee manual 2.4. Observe good workplace practice in handling and disposing of materials following nursery policy, procedures and OHS requirements 2.5. Report problems or difficulties in completing work to required standards or timelines to authority, based on company reporting procedures	TLE_AFAC9NW-IIIIf-j-2
1. Basic stock control procedures 2. Recycling/composting practices and procedures			LO 3. Store and stockpile materials 3.1. Store plant debris and waste material produced during	TLE_AFAC9NW-IVa-e-3

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
3. Proper stockpiling of surplus materials 4. Storage practices and principles for materials 5. Waste materials management 6. Routine maintenance of workplace			nursery activities according to nursery /OHS procedure 3.2. Prepare and process plant debris and waste materials in an appropriate and safe manner according to accepted recycling/composting practices and procedures 3.3. Stockpile all surplus materials according to company disposition guidelines 3.4. Maintain a clean and safe work site while completing nursery activities following routine maintenance procedures	
1. OHS Requirements 2. Procedures for storage of plants and materials 3. Routine cleaning, maintenance and storage of tools and equipment 4. Report preparation of work outcomes			LO 4. Cleanup on completion of nursery work 4.1. Store plants and 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 work outcome to the supervisor following established reporting formats	TLE_AFAC9NW-IVf-j-4

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TECHNOLOGY AND LIVELIHOOD EDUCATION
AGRI – FISHERY ARTS – AGRI – CROP PRODUCTION
Grade 10 (Specialization)**

Course Description:

Prerequisite: Grade 9 Agri-Crop Production

This module covers the skills and knowledge required to support agronomic cropping work under supervision. It requires the ability to prepare materials, tools and equipment for cropping work; undertake cropping activities; and handle materials and equipment. Supporting agronomic cropping work requires knowledge of safe work practices, cropping practices and related tools and equipment.

This also covers the skills and knowledge required to support the installation, operation and maintenance of watering and drainage systems under direct supervision. It requires the ability to prepare materials, tools and equipment for irrigation work, undertake irrigation activities, handle materials and equipment, and perform thorough cleanups upon completion of the work. Supporting irrigation work requires knowledge of safe work practices, irrigation work techniques, irrigation tools and equipment, and repair and maintenance of irrigation components and systems.

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<p>Introduction</p> <ol style="list-style-type: none"> Support agronomic crop work Support irrigation work Career opportunities 	The learner demonstrates an understanding of concepts and principles, underlying theories, and actual application in agronomic crop production and irrigation work.	The learner independently demonstrates common competencies in agronomic crop production and irrigation work as prescribed by TESDA Training Regulations.	<ol style="list-style-type: none"> Explain the cultural methods and practices in agronomic crop production Discuss the relevance of the course Explore career opportunities in the field after taking the course 	
PERSONAL ENTREPRENEURIAL COMPETENCIES (PeCS)				
<ol style="list-style-type: none"> Assessment of Personal Competencies and Skills (PeCS) vis-à-vis PeCS of a practicing entrepreneur/employee in the province. <ol style="list-style-type: none"> Characteristics Attributes Lifestyle Skills Traits Analysis of PeCS in relation to a practitioner Align, strengthen and develop one's PeCS based on the results 	The learner demonstrates an understanding of one's Personal Competencies and Skills (PeCS) and what it takes to become successful in the field.	The learner recognizes his/her Personal Competencies and Skills (PeCS) and is able to compare these with the PeCS of a practicing entrepreneur/ employee involved in agricultural crop production.	<p>LO 1. Develop and strengthen Personal Competencies and Skills (PeCS) needed in agricultural crop production</p> <ol style="list-style-type: none"> Identify and assess one's PeCS: Characteristics, Attributes, Lifestyle, Skills, Traits Identify successful entrepreneurs/ employees in the province Identify and assess a practitioner's PeCS: Characteristics, Attributes, Lifestyle, Skills, Traits Compare self with a practitioner Identify areas for improvement, development and growth 	TLE_PECS10-00-1

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			1.6. Align, strengthen, develop areas based on the results of the PeCS assessment	
ENVIRONMENT AND MARKET (EM)				
THE MARKET (The Province) 1. Key concepts of the Market 2. Players in the Market (Competitors) 3. Products and services available in the market	The learner demonstrates an understanding of the market of agricultural crop production from the context of the province.	The learner independently identifies the products/services available and the competitors within the agricultural crop production market from the context of the province.	LO 1. Recognize and understand the market for agricultural crop production 1.1. Identify the players/ competitors within the province 1.2. Identify the different products/services available in the market 1.3. Enumerate the differences between these products/ services	TLE_EM10-IO-1
THE MARKET – PRODUCT DEVELOPMENT 1. Key concepts of developing a product 2. Finding Value 3. Innovation 4. Unique Selling Proposition (USP)	The learner demonstrates an understanding of developing a product in agricultural crop production	The learner independently identifies the customers in the agricultural crop production market.	LO 2. Develop a product for the agricultural crop production market 2.1. Identify what is of “value” to the customer 2.2. Identify the Customer 2.3. Define and identify what makes a product different 2.4. Enumerate and apply creativity and innovation techniques in order to develop a product that stands out 2.5. Identify the Unique Selling Proposition (USP) of the product	TLE_EM10-II0-2
THE MARKET - SELECTING BUSINESS IDEA 1. Key concepts in Selecting a Business Idea 2. Criteria 3. Techniques	The learner demonstrates an understanding of the techniques of selecting business ideas.	The learner independently selects a viable business idea.	LO 3. Select a business idea based on the criteria and techniques provided for the agricultural crop production market 3.1. Identify potential business ideas to select from 3.2. Enumerate the various criteria and steps to selecting a business	TLE_EM10-III0-3

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			idea 3.3. Apply the criteria/steps in order to select a viable business idea 3.4. Identify a business idea based on the criteria/steps provided.	
THE MARKET - BRANDING 1. Key concepts of Branding	The learner demonstrates an understanding of branding and develops a brand for their business idea.	The learner independently generates a brand for their business idea.	LO 4. Develop a brand for the product 4.1. Identify the benefits of having a good brand 4.2. Enumerate recognizable brands in the town/province 4.3. Enumerate the criteria for developing a brand 4.4. Generate a brand that is clear and follows the techniques of generating a brand	TLE_EM10-IV0-4
QUARTER 1 and 2 LESSON 1: SUPPORT CROP WORK <i>(Note: Research component should be included in the activities)</i>				
1. Types and selection of materials, tools, and equipment appropriate to agronomic production 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 concepts, underlying theories and principles in the preparation of materials, tools and equipment in agronomic crop production.	The learner prepares farm tools and equipment for agronomic crop production based on required task.	LO 1. Prepare materials, tools and equipment for agronomic crop work 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 sufficient quantity, faults/defects based on manufacturer's lists and pre-operating procedures 1.3. Demonstrate correct manual handling procedures and techniques when loading and unloading materials to minimize damage to the load to the	TLE_AFAC10CW-Ia-e-1

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			materials, tools and equipment 1.4. Select and check suitable personal protective equipment (PPE) prior to use according to job requirements 1.5. Provide cropping support according to OHS requirements and workplace information 1.6. Identify OHS hazards and report to the teacher/ supervisor based on OHS requirements and company reporting procedures	
1. Common agronomic crop work 2. Safe work practices in agronomic operation 3. Proper use of farm tools and equipment 4. Cropping practices 5. Procedures for land preparation, seeding, crop maintenance, fertilization, loading and unloading, harvesting/picking, baling, raking, sorting and packing of agronomic crops 6. Planting, picking, packing, loading and transporting techniques for agronomic crops 7. Environmental aspects of agronomic crop work 8. Interpersonal relationships and communication (oral and			LO 2. Undertake agronomic crop work as directed 2.1. Follow and clarify instructions and directions based on supervisor’s requirements and workplace procedures 2.2. Undertake cropping work in a safe and environmentally-responsible manner according to enterprise guidelines 2.3. Interact with other staff and customers in a positive and professional manner as specified in the employee manual 2.4. Observe good workplace practice in handling and disposing of materials following enterprise policy and procedures 2.5. Report problems or difficulties in completing work to required standards or timelines to authority, based on company reporting procedures	TLE_AFAC10CW-If-j-2

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
written)				
<ol style="list-style-type: none"> Proper use/handling of materials and equipment Storage practices and principles for materials and equipment Waste materials management Routine maintenance of sheds and other workplaces Repair and maintenance of structures Occupational health and safety procedures 			LO 3. Handle materials and equipment 3.1. Store/dispose of waste material and debris 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 while undertaking irrigation activities in accordance with OHS procedures	TLE_AFAC10CW-IIa-e-3
<ol style="list-style-type: none"> Procedures for storage of excess materials Procedures for disposal of waste materials Routine cleaning, maintenance and storage of tools and equipment Report preparation of work outcomes 			LO 4. Cleanup on completion of cropping work 4.1. Return, storage cabin or dispose of materials according to company standard procedures 4.2. Clean, maintain and store tools and equipment according to manufacturers' specifications 4.3. Report work outcomes to the authority following established reporting formats	TLE_AFAC10CW-IIIf-j-4
QUARTER 3 and 4				
LESSON 2: SUPPORT IRRIGATION WORKS (IW) <i>(Note: Research component should be included in the activities)</i>				
<ol style="list-style-type: none"> Types and selection of materials, tools, and equipment Routine check-up of tools and equipment Different irrigation systems and components Personal protective equipment and 	The learner demonstrates an understanding of safety precautions in preparation of materials and handling of irrigation work.	The learner practices safety precautions in preparation of materials and handling of irrigation work for agronomic crop production as stipulated in the manual.	LO 1. Prepare materials, tools and equipment for irrigation work. 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 insufficient	TLE_AFAC10IW-IIIa-e-1

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
occupational health and safety requirements 5. OHS hazards/ general OH & S principles and legislation 6. Accident/hazard reporting procedures			quantity or faults/defects and report to the authority based on manufacturer's lists and pre-operating procedures 1.3. Demonstrate correct manual handling and techniques used when loading and unloading materials to minimize damage to the materials, tools and equipment 1.4. Follow material and equipment handling procedures 1.5. Select and check suitable personal protective equipment (PPE) prior to use and according to job requirements 1.6. Provide irrigation support according to OHS requirements and according to workplace information 1.7. Identify and report to the supervisor the OHS hazards based on OHS requirements and company reporting procedures	
1. Safe work practices 2. Basic irrigation principles and practices 3. Basic construction techniques 4. Irrigation tools and equipment 5. Installation of irrigation and/or drainage pipes 6. Environmental aspects of irrigation work 7. Repair and maintenance of irrigation components			LO 2. Undertake irrigation work as directed 2.1. Follow and clarify instructions and directions based on authority's requirements and workplace procedures 2.2. Undertake irrigation work 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	TLE_AFAC10IW-IIIIf-j-2

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
and systems 8. Interpersonal relationships and communication (oral and written)			customers as specified in the employee manual 2.4. Observe handling and disposal practices of materials for irrigation work, following engineering and enterprise policy and procedures 2.5. Report problems or difficulties in completing work to required standards or timelines to authority based on company reporting procedures	
1. Proper use/handling of materials and equipment 2. Storage practices for materials and equipment 3. Waste materials storage and disposition 4. Routine maintenance of irrigation and/or drainage systems and components 5. Repair, maintenance, and storage of infrastructures, materials, tools and equipment			LO 3. Handle materials and equipment 3.1. Store waste material and debris in the 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 while undertaking irrigation activities in accordance with OHS procedures	TLE_AFAC10IW-IVa-e-3
1. Procedures for storage of excess materials 2. Procedures for disposal of waste materials 3. Routine cleaning, maintenance and storage of tools and equipment 4. Environmental requirements relative to irrigation 5. Report preparation of			LO 4. Cleanup on completion of irrigation activities 4.1. Return to storage cabin or dispose the materials according to company standard procedures and supervisor's instructions 4.2. Clean, maintain and store the tools and equipment according to manufacturers' specifications and supervisors' instructions	TLE_AFAC10IW-IVf-j-4

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
work outcomes 6. Accident/hazard reporting procedures			4.3. Make the site clean according to authorities' instructions and good environmental practices 4.4. Report work outcomes to the authority following established reporting formats	

CODE BOOK LEGEND

**K to 12 BASIC EDUCATION CURRICULUM
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Sample: TLE_AFAC9HC-IIa-e-3**

LEGEND		SAMPLE	
First Entry	Learning Area and Strand/ Subject or Specialization	Technology and Livelihood Education_Agri-Fishery Agri-Crop Production	TLE_AFAC9HC
	Grade Level	Grade 9	
Uppercase Letter/s	Domain/Content/ Component/ Topic	Support Horticultural Crop Work	HC
			-
Roman Numeral <i>*Zero if no specific quarter</i>	Quarter	Second Quarter	II
Lowercase Letter/s <i>*Put a hyphen (-) in between letters to indicate more than a specific week</i>	Week	Week one to five	a-e
			-
Arabic Number	Competency	Store waste material in a designated area according to workplace procedure/OHS procedure	3

DOMAIN/ COMPONENT	CODE
Personal Entrepreneurial Skills	PECS
Environment and Marketing	EM
Use and Maintain Farm Tools and Equipment	UT
Perform Estimation and Basic Calculation	MC
Interpret Plans and Drawings	ID
Apply Safety Measures in Farm Operations	OS
Support Horticultural Crop Work	HC
Support Nursery Work	NW
Support Crop Work	CW
Support Irrigation Works	IW



Animal Production

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
AGRI-FISHERY ARTS – ANIMAL PRODUCTION
Grades 7/8 (Exploratory)**

Course Description:

This Module is an exploratory and introductory course which leads to **Animal Production** National Certificate Level II (**NC II**). It covers **four** common competencies that a Grade 7/Grade 8 Technology and Livelihood Education (TLE) student ought to possess: 1) using tools, equipment and paraphernalia; 2) performing mensuration and calculation; 3) interpreting plans and drawing; and 4) apply safety measures in farm operation.

The preliminaries of this exploratory 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
<p>Introduction</p> <ol style="list-style-type: none"> 1. Basic concepts in animal production 2. Relevance of the course 3. Career opportunities 	<p>The learner demonstrates an understanding of basic concepts and underlying theories in animal production.</p>	<p>The learner independently demonstrates common competencies in animal production as prescribed by TESDA Training Regulations.</p>	<ol style="list-style-type: none"> 1. Explain basic concepts in animal production 2. Discuss the relevance of the course 3. Explore career opportunities in animal production 	
Personal Entrepreneurial Competencies (PECS)				
<ol style="list-style-type: none"> 1. Assessment of Personal Competencies and Skills (PeCS) vis-à-vis a practicing entrepreneur/employee <ol style="list-style-type: none"> 1.1. Characteristics 1.2. Attributes 1.3. Lifestyle 1.4. Skills 1.5. Traits 2. Analysis of PeCS in relation to that of a practicing entrepreneur/employee 	<p>The learner demonstrates an understanding of one's Personal Competencies and Skills (PeCS).</p>	<p>The learner recognizes his/her Personal Competencies and Skills (PeCS) and is able to compare these with the PeCS of a practicing entrepreneur/employee involved in animal production.</p>	<p>LO 1. Recognize Personal Competencies and Skills (PeCS) needed in animal production</p> <ol style="list-style-type: none"> 1.1. Identify and assess one's PeCS: Characteristics, Attributes, Lifestyle, Skills, Traits 1.2. Identify and assess a practitioner's PeCS: Characteristics, Attributes, Lifestyle, Skills, Traits 1.3. Compare self with a practitioner 1.4. Identify areas for improvement, development and growth 	TLE_PECS7/8-00-1

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
Environment and Marketing (EM)				
<ol style="list-style-type: none"> Key concepts of Environment & Market Products & services available in the market Concept of differentiation of products & services Concept of Customers and the reasons they buy products & services Competitors in the market 	Learner demonstrates understanding of the environment and market of animal production.	The learner independently identifies the products/services available, the customers, and the competition within the animal production market.	LO 1. Recognize and Understand the market for animal production <ol style="list-style-type: none"> Identify the different products/services available in the market Enumerate the differences between these products Identify the customers and the reason these products/services are purchased Identify the companies selling these products/services in the market 	TLE_EM7/8-00-1
LESSON 1: USE AND MAINTAIN FARM TOOLS AND EQUIPMENT (UT)				
<ol style="list-style-type: none"> Farm tools Safety practices Functions Facilities Preventive maintenance 	The learner demonstrates an understanding of tools and equipment used in animal production.	The learner uses tools and equipment in animal production.	LO 1. Select and use farm tools <ol style="list-style-type: none"> Identify appropriate farm tools and equipment according to function Check farm tools for faults and defects and report them in accordance with farm procedures Use appropriate tools according to job requirements and manufacturers' instructions 	TLE_AFP7/8UT-0a-1
			LO 2. Select and operate farm equipment <ol style="list-style-type: none"> Identify farm equipment and facilities Observe carefully the guidelines in the instructional manual of farm equipment 	TLE_AFP7/8UT-0b-c-2

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			<p>prior to operation</p> <p>2.3. Conduct pre-operation check-up in line with manufacturer's manual of instructions</p> <p>2.4. Identify farm equipment and facilities in line with farm procedures</p> <p>2.5. Use farm equipment according to their functions</p> <p>2.6. Follow safety procedures</p> <p>LO 3. Perform Preventive Maintenance</p> <p>3.1. Clean tools and equipment after use in line with farm procedures</p> <p>3.2. Perform routine check-up and maintenance of tools and equipment in line with farm procedures</p> <p>3.3. Discuss ways of storing tools and equipment in designated areas in line with farm procedures</p>	<p>TLE_AFPA7/8MT-0d-3</p>
LESSON 2: PERFORM ESTIMATION AND BASIC CALCULATION (MC)				
<p>1. Basic mathematical operations</p> <p>2. Procedures in problem solving</p> <p>3. Systems of measurement</p> <p>4. Fraction and decimals</p> <p>5. Percentages and ratios</p> <p>6. Basic record keeping</p>	<p>The learner demonstrates understanding of basic estimation and calculation used in animal production.</p>	<p>The learner performs estimation and basic calculation relative to animal production.</p>	<p>LO 1. Perform Estimation</p> <p>1.1 Identify job requirements</p> <p>1.2 Estimate quantities and resources required to complete a task</p> <p>1.3 Calculate the duration of work completion</p> <p>LO 2. Perform basic workplace calculation</p> <p>2.1. Identify calculations to be made according to the job requirement</p> <p>2.2. Determine correct methods of calculation</p>	<p>TLE_AFPA7/8MC-0e-1</p> <p>TLE_AFPA7/8MC-0f-2</p>

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			2.3. Ascertain systems and units of measurement to be followed 2.4. Perform calculations needed to complete a task using the four basic mathematical operations 2.5. Use appropriate operations to comply with the job requirement 2.6. Employ different techniques in checking accuracy of result	
LESSON 3: INTERPRET PLANS AND DRAWINGS (ID)				
1. Types of housing 2. Components of housing 3. Building codes 4. Signs and symbols in building codes	The learner demonstrates an understanding of interpreting plans and drawings related to animal production.	The learner interprets plans and drawings relative to animal production on his/her own.	LO 1. Draw layout plan of different types of housing 1.1 Identify types of housing and their components in poultry and livestock 1.2 Design different houses used in poultry and livestock production	<i>EASE Module 10</i> TLE_AFP7/8ID-0g-1
			LO 2. Enumerate the provisions of the building code in constructing poultry and livestock houses 2.1. Discuss building code in constructing poultry and livestock houses 2.2. Interpret signs and symbols of building code	<i>EASE Module 10</i> TLE_AFP7/8ID-0h-2
LESSON 4: APPLY SAFETY MEASURES IN FARM OPERATIONS				
1. Safety Measures 2. Apply safety measures 3. Safekeeping/disposal of tools, materials and outfit	The learner demonstrates an understanding of concepts, underlying theories and principles in applying safety measures in animal production.	The learner independently observes safety measures in animal production.	LO 1. Apply appropriate safety measures 1.1 Identify work tasks 1.2 Determine place and time for safety measures 1.3 Prepare appropriate tools, materials and outfits	TLE_AFP7/8OS-0i-1

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			1.4 Use tools and materials accordingly 1.5 Identify hazards 1.6 Wear outfits accordingly 1.7 Observe shelf life 1.8 Follow emergency procedures	
			LO 2. Safekeeping/disposal of tools, materials and outfit 2.1. Explain how to clean used tools and outfit in line with farm procedures before storing 2.2. Label unused materials and supplies according to manufacturer's recommendation before storing 2.3. Observe how to dispose waste materials according to manufacturers, government and farm requirements	TLE_AFPA7/8OS-0j-2

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
AGRI-FISHERY ARTS – ANIMAL PRODUCTION
GRADE 9 (Specialization)**

Course Description:

This is a specialization course which leads to **Animal Production** National Certificate Level II (NC II). It covers a core competency that a Grade 9 Technology and Livelihood Education (TLE) student ought to possess which is poultry raising.

The preliminaries of this 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
<p>Introduction</p> <ol style="list-style-type: none"> 1. Concepts of Animal Production 2. Relevance of the course 3. Business opportunities 	The learner demonstrates an understanding of concepts and underlying theories in animal production.	The learner independently demonstrates core competencies in animal production as prescribed by TESDA Training Regulations.	<ol style="list-style-type: none"> 1. Explain concepts in animal production 2. Discuss the relevance of the course 3. Explore business opportunities for animal production 	
Personal Entrepreneurial Competencies (PECS)				
<ol style="list-style-type: none"> 1. Assessment of Personal Competencies and Skills (PeCS) vis-à-vis a practicing entrepreneur/employee in the town. <ol style="list-style-type: none"> 1.1. Characteristics 1.2. Attributes 1.3. Lifestyle 1.4. Skills 1.5. Traits 2. Analysis of PeCS in relation to those of a practicing entrepreneur/employee 3. Align, strengthen and develop one's PeCS based on the results 	The learner demonstrates an understanding of ones Personal Competencies and Skills (PeCS) and what it takes to become successful in the field.	The learner recognizes his/her Personal Competencies and Skills (PeCS) and is able to compare these with the PeCS of a practicing entrepreneur/ employee involved in animal production.	<p>LO 1. Develop and Strengthen Personal Competencies and Skills (PeCS) needed animal production</p> <ol style="list-style-type: none"> 1.1. Identify and assess one's PeCS: Characteristics, Attributes, Lifestyle, Skills, Traits 1.2. Identify successful entrepreneurs/ employees in the town 1.3. Identify and assess a practitioner's PeCS: Characteristics, Attributes, Lifestyle, Skills, Traits 1.4. Compare self with a practitioner 1.5. Identify areas for improvement, development and growth 1.6. Align, strengthen, develop areas based on the results of the PeCS Assessment 	TLE_PECS9-I0-1

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
Environment and Marketing (EM)				
THE MARKET (The Town) 1. Key concepts of the Market 2. Players in the Market (Competitors) 3. Products & services available in the market.	The learner demonstrates an understanding of the market of animal production in the context of the town.	The learner independently identifies the products/services available and the competitors within the animal production market in the context of the town.	LO 1. Recognize and understand the market in Animal Production 1.1 Identify the players/competitors within the town 1.2 Identify the different products/services available in the market	TLE_EM9-I0-1
THE MARKET – CUSTOMER 1. Key concepts in Identifying and Understanding the Consumer 2. Consumer Analysis through: 2.1. Observation 2.2. Interviews 2.3. FGDs (Focused Group Discussions) 3. Surveys	The learner demonstrates an understanding of the customers of animal production.	The learner independently identifies the customers in the animal production market.	LO 2. Recognize the potential customer/market in Animal Production 2.1. Identify the profile of potential customers 2.2. Identify the customer’s needs and wants through consumer analysis 2.3. Conduct consumer/market analysis	TLE_EM9-II0-2
THE MARKET - GENERATING BUSINESS IDEA 1. Key concepts of Generating Business Ideas 2. Knowledge & Skills, Passions, Interests 3. new application 4. Irritants 5. Striking ideas (new concept) 6. Serendipity Walk	The learner demonstrates an understanding of the techniques in generating business ideas.	The learner independently generates business ideas using the various techniques available.	LO 3. Create new business ideas in Animal Production business by using various techniques 3.1. Explore ways of generating business idea from ones’ own characteristics/attributes 3.2. Generate business ideas using product innovation from irritants, trends and emerging needs 3.3. Generate business ideas using Serendipity Walk	TLE_EM9-III0-3
LESSON 1: RAISE POULTRY (RP) <i>(Note: Research components should be included in all activities)</i>				
1. Different breeds and strains of poultry 2. Desirable and undesirable characteristics 3. Selection and culling	The learner demonstrates an understanding of the selection and procurement of stocks of poultry to raise.	The learner demonstrates independently selects breeds of poultry.	LO 1. Select and procure stock, breeds/strains for poultry raising 1.1. Secure breeds according to type 1.2. Identify breeds that are suitable	TLE_AFPA9RP-Ia-c-1

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
4. Confidence in selection			to the local condition 1.3. Identify sources of stocks for egg/meat production 1.4. Evaluate status of the breed/strain of stocks to raise	
1. Purposes of feeding 2. Functions of feeds 3. Essential nutrients for poultry 4. Sources and functions of essential nutrients for poultry 5. Kinds of feeds for poultry 6. Feeding system 7. Feeding guide 8. Feed formulation	The learner demonstrates understanding and skills required in providing feeds and implementing feeding practices	The learner independently apply knowledge and skills in providing feeds and implementing feeding practices of poultry	LO2. Provide feed and implement feeding practices 2.1. Discuss the purposes of feeding 2.2. Explain the functions of feeds 2.3. Enumerate/discuss the essential nutrients needed by poultry 2.4. Discuss sources and functions of essential nutrients for poultry are discussed 2.5. Identify the different kinds of feeds for poultry 2.6. observe feeds and water consumption guide strictly 2.7. Observe feeding practices in poultry properly 2.8. Formulate a simple ration for poultry	TLE_AFP9RP-Id-j-2
1. Types of brooding 2. System of brooding 3. Brooder preparation 4. Materials needed in brooding 5. Kinds of chick to brood 6. Requirements and conditions in brooding 7. Required temperature 8. Behavior of chicks	The learner demonstrates understanding and skills on proper brooding of chicks.	The learner independently demonstrates the skills and attitudes required in brooding.	LO 3. Brooding 3.1. Differentiate the types of brooding 3.2. Explain the system of brooding 3.3. Perform brooder preparations 3.4. Secure/collect all materials needed in brooding 3.5. Determine the number of chicks to brood 3.6. Identify/determine the requirements and conditions needed in brooding 3.7. Observe/maintain required temperature in the brooder 3.8. Monitor/observe behavior of chicks	TLE_AFP9RP-IIa-g-3

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<ol style="list-style-type: none"> 1. Flock uniformity 2. Lighting program 3. Debeaking 4. Culling 5. Molting 	The learner demonstrates understanding and skills required in proper flock management.	The learner independently performs and maintains proper flock management.	LO 4. Maintain proper flock management 4.1. Discuss flock uniformity in egg production 4.2. Observe proper lighting to the laying flock 4.3. Perform debeaking of chicks and pullets 4.4. Demonstrate proper culling procedures 4.5. Monitor possible indications of molting	TLE_AFP A9RP-IIh-j-IIIa-c-4
<ol style="list-style-type: none"> 1. Harvest, sort, and store eggs 2. Grading/sorting and handling poultry products 3. Marketing poultry products 4. Inventory reports and production records 5. proper monitoring of production activities 6. Profitability of the operation 	The learner demonstrates independently the knowledge, skills and attitudes required in the successful pre and post-harvest.	The learner independently performs pre and post-harvest activities in poultry production properly.	LO 5. Pre and Post Harvest Activities 5.1. Harvest/collect eggs once or twice a day using appropriate materials 5.2. Apply proper handling, sorting and classify eggs according to industry standards 5.3. Store eggs at room temperature 5.4. Process eggs to extend storage life and add value 5.5. Describe the desirable market features of meat type chicken 5.6. and other poultry products 5.7. Identify/accomplish record to be kept 5.8. Analyze record kept 5.9. Evaluate the viability of the enterprise	TLE_AFP A9RP-IIIId-h-5
<ol style="list-style-type: none"> 1. Common pest and diseases of poultry 2. Prevention and control of parasites and diseases 3. Vaccination and medication program 	The learner demonstrates understanding in the effective health and sanitation management program and practices for successful poultry production.	The learner independently demonstrates the knowledge, skills and attitudes required to perform effective preventive and therapeutic measures in poultry production.	LO 6. Perform Preventive and Therapeutic Measures 6.1. Determine poultry parasites and diseases based on the signs and symptoms 6.2. Apply preventive and control measures in accordance with	TLE_AFP A9RP-IIIi-j-IVa-j-6

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			the industry and farm production standard 6.3. Observe precautionary measures in the use of biologics 6.4. Implement medication and vaccination program in accordance with industry standard	

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TECHNOLOGY AND LIVELIHOOD EDUCATION
AGRI-FISHERY-ANIMAL PRODUCTION
GRADE 10 (Specialization)**

Pre-requisite: Grade 9 Animal Production

Course Description:

This is a specialization course which leads to **Animal Production** National Certificate Level II (NC II). It covers one core competency that a Grade 10 Technology and Livelihood Education (TLE) student ought to possess—raising small **ruminants**.

The preliminaries of this 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 business opportunities.

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<p>Introduction</p> <ol style="list-style-type: none"> 1. Concepts of animal production 2. Relevance of the course 3. Business opportunities 	The learner demonstrates an understanding of the concepts and underlying theories in animal production.	The learner independently demonstrates core competencies in animal production as prescribed by TESDA Training Regulations.	<ol style="list-style-type: none"> 1. Explain concepts in Animal Production 2. Discuss the relevance of the course 3. Explore on opportunities for animal production as a business 	
Personal Entrepreneurial Competencies (PECS)				
<ol style="list-style-type: none"> 1. Assessment of Personal Competencies and Skills (PeCS) vis-à-vis a practicing entrepreneur/employee in the 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 PeCS in relation to those of a practicing entrepreneur/employee 3. Align, strengthen and develop ones PeCS based on the results 	The learner demonstrates an understanding of one's Personal Competencies and Skills (PeCS) and what it takes to become successful in the field.	The learner recognizes his/her Personal Competencies and Skills (PeCS) and is able to compare these with the PeCS of a practicing entrepreneur/ employee involved in animal production.	<p>LO 1. Develop and Strengthen Personal Competencies and Skills (PeCS) needed animal production</p> <ol style="list-style-type: none"> 1.1. Identify and assess one's PeCS: Characteristics, Attributes, Lifestyle, Skills, Traits 1.2. Identify successful entrepreneurs/ employees in the province 1.3. Identify & Assess a practitioner's: Characteristics, Attributes, Lifestyle, Skills, Traits 1.4. Compare self with a practitioner 1.5. Identify areas for improvement, development and growth 	TLE_PEC10-I0-1

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			1.6. Align, strengthen, develop areas based on the results of the PeCS Assessment	
THE MARKET (The Province) 1. Key concepts of the Market 2. Players in the Market (Competitors) 3. Products & services available in the market	The learner demonstrates an understanding of the market of animal production in the context of the province.	The learner independently identifies the products/services available and the competitors of the animal production market in the context of the province.	LO 1. Recognize and Understand the market for animal production 1.1 Identify the players/competitors within the province 1.2 Identify the different products/services available in the market 1.3 Enumerate the differences between these products/services	TLE_EM10-I0-1
THE MARKET – PRODUCT DEVELOPMENT 1. Key concepts of developing a product 2. Finding Value 3. Innovation 4. Unique Selling Proposition (USP)	The learner demonstrates understanding of developing a product in animal production.	The learner independently identifies the customers within the animal production market.	LO 2. Develop a product for the animal production market 2.1. Identify what is of “Value” to the customer 2.2. Identify the Customer 2.3. Define and identify what makes a product different 2.4. Enumerate and apply creativity and innovation techniques to develop a product that stands out 2.5. Identify the Unique Selling Proposition (USP) of the product	TLE_EM10-II0-2
THE MARKET - SELECTING BUSINESS IDEA 1. Key concepts of Selecting a Business Idea 2. Criteria 3. Techniques	The learner demonstrates an understanding of the techniques in selecting business ideas.	The learner independently selects a viable business idea.	LO 3. Select a business idea for the animal production market based on the criteria and techniques provided 3.1. Identify potential business ideas to select from 3.2. Enumerate the various criteria and steps to selecting a business idea	TLE_EM10-III0-3

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			3.3. Apply the criteria/steps in order to select a viable business idea 3.4. Identify a business idea based on the criteria/steps provided	
THE MARKET – BRANDING Key concepts of Branding	The learner demonstrates an understanding of branding and develops a brand for their business idea.	The learner independently generates a brand for their business idea.	LO 4. Develop a brand for the product 4.1. Identify the benefits of having a good brand 4.2. Enumerate recognizable brands in the town/province 4.3. Enumerate the criteria for developing a brand 4.4. Generate a brand that is clear and follows the techniques of generating a brand	TLE_EM10-IV0-4
LESSON 1: RAISE SMALL RUMINANTS (SM) <i>(Note: Research components should be included in all activities)</i>				
1. Breeds of goat and sheep based on breeding records 2. Proper selection of goat/sheep breeds 3. Manage breeder goat/sheep 4. Signs of heat 5. Unproductive animals 6. Preparation of inventory reports, production and performance records, and financial analysis 7. Computation of feed requirements and biological space requirement for individual animals and stocking density based on recommended standards and BAI requirements	The learner demonstrates an understanding of goat and sheep breeds based on industry specifications.	The learner independently selects breeds of small ruminants based on their characteristics.	LO 1. Select and manage breeder goats and sheep 1.1. Identify suitable and superior breeds of goats and sheep based on industry standard 1.2. Feed bucks and rams 1.3. Perform regular grooming 1.4. Detect signs of heat among sexually mature does and ewes 1.5. Mate breeder does and ewes with genetically superior rams/bucks 1.6. Diagnose/confirm pregnant animals 1.7. Cull unproductive buck/ram and does/ewes 1.8. Detect signs of pre-heat, standing heat, post-heat 1.9. House breeder buck/rams and does/ewes	TLE_AFPA10SM-Ia-e-1

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<ol style="list-style-type: none"> 1. Management of does/ewes 2. Tagging/identifying kids/lambs properly 3. Proper care/practices in growing young and mature animals 4. Health practices for goat/sheep 5. Appropriate number of animals for available grazing/pasture area 6. Monitoring body weights and feed requirements of animals 			<p>LO 2. Manage does/ewes and their progenies</p> <ol style="list-style-type: none"> 2.1. Monitor signs of approaching kidding/lambing 2.2. Dispose placenta and dead kids/lambs properly 2.3. Assist kids/lambs to suckle colostrums 2.4. Identify kids/lambs through ear tags/notches 2.5. Disbud growing kids/lambs appropriately 2.6. Dehorn and castrate growing small ruminants 2.7. Wean lambs/kids properly at 3 months from birth 2.8. Keep lactating goats and sheep in a clean and quite environment 2.9. Separate lactating goats from the breeder males 2.10. Provide forage grasses concentrate, other feed supplements and adequate water supply 	TLE_AFPA10SM-If-j-2
<ol style="list-style-type: none"> 1. Selection of site for housing 2. Materials for housing 3. Space requirements for goat/sheep 4. Types of housing 			<p>LO 3. Provide comfortable housing</p> <ol style="list-style-type: none"> 3.1. Identify the different types of goat/sheep house 3.2. Identify the materials needed in the construction of a goat/sheep house 3.3. Estimate the recommended floor space requirement of goat/sheep at different physiological stages 	TLE_AFPA10SM-IIa-e-3

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<ol style="list-style-type: none"> 1. Feeding guide for small ruminants 2. Common feed ingredients for goat/sheep 3. Feeding the general herd 4. Grasses/forages 5. Concentrates 6. Feed supplements 7. Alternative food resources 8. Ratio 9. Silage 10. Grazing area 11. Feed requirements and biological space requirement for individual animals and stocking density based on recommended standards and BAI requirements 12. Appropriate animal unit per available grazing or pasture area 13. Feed conversion efficiency 			<p>LO 4. Provide proper feeding management</p> <ol style="list-style-type: none"> 4.1. Establish a feeding guide following the animals' nutritional requirements 4.2. Determine the feeding system for small ruminants 4.3. Provide forages, concentrates and food supplements 4.4. Make water available to animals 4.5. Establish and maintain pasture area for the herd 4.6. Search for alternative feed resources 	TLE_AFPA10SM-IIIf-IIIj-4
<ol style="list-style-type: none"> 1. Diseases and parasites attacking goats 2. Preventive measures on the different diseases and parasites of goats 3. Prevention vs control 4. Proper herd health program 5. Application of biologics and other disease treatment and management practices 6. Practices to contain disease spread 			<p>LO 5. Implement health program</p> <ol style="list-style-type: none"> 5.1. Identify the different diseases and parasites attacking goats and sheep 5.2. Practice/apply the preventive measures 5.3. Follow the medication and vaccination program designed by BAI and as prescribed by a veterinarian 5.4. Appreciate the importance of keeping the animals healthy 5.5. Dispose of properly dead animals 5.6. Treat sick animals 	TLE_AFPA10SM-IVa-f-5

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
1. Record keeping 2. Record analysis 3. Preparing inventory reports, production and performance records, and financial report			LO 6. Analyze record 6.1. Keep/update records according to organization standards 6.2. Analyze the viability of the project based on records 6.3. Make sound management decisions based on records	TLE_AFPA10SM-IVg-j-6

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

GLOSSARY

Animal Production	A science that deals with production and management of livestock or domestic animals.
Breed	A group of animals that have specific traits or characteristics in common.
Broiler	A type of chicken that is commonly raised between 35 to 42 days and weighs between 1.5-2.0 kilograms.
Brooding	A natural or artificial means of supplying heat to a newly hatched chick from one day to two weeks old.
Castration	Any action, surgical, chemical, or otherwise, by which a male loses the functions of his testicles or a female loses the functions of her ovaries; also referred to as gelding, spaying, neutering, fixing, orchiectomy, and oophorectomy.
Confinement	The state of being confined; with restricted movement.
Entrepreneur	Someone who enters any business to introduce a product or service to substantially form or change the nerve center of that business.
Equipment	Power tools and machines used in animal production.
Farrowing	The act of giving birth; it pertains to swines.
Feed	Edible materials which are consumed by animals and thus contribute energy or nutrients to the animal diet
Feeding	The process of giving feeds to an animal.
Fencing tool	A device used for fence construction and layout of animal houses.
Flammable	Easily ignited and capable of burning rapidly.
Gestation	The period which begins from the breeding of a female until she gives birth to her young.
Hand tool	Things used for conducting simple repair and maintenance operations
Handheld tool	A tool which is compact enough to be used or operated while being held in the hand or hands
Incubation	The process by which certain animals hatch their <u>eggs</u> ; the development of the <u>embryo</u> within the egg until it hatches.
Layer	An egg-type or dual-type 6-month female fowl that lays eggs.
Livestock	One or more domesticated animals raised in an agricultural setting to produce commodities such as food, fiber and labor; usually four legged animals.

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

GLOSSARY

Market	A place where goods are sold.
Mortality Rate	The number of animals that died based on the total number of animals raised.
Nutrients	Substances that nourish animals for specific purposes such as for health maintenance, growth, repair of body tissues, reproduction, and other productive activities.
Parasite	A living organism which is dependent on another living organism for food in order to survive.
Poultry	Feathered animals such as chickens, ducks, geese, etc.; A collective term for all domestic birds rendering economic service to man.
Power tool	A tool powered by electricity or driven by a motor.
Pullet	A female fowl, 5 to 6 months of age, intended for egg production
Ration	The amount of feed an animal receives in a 24-hour period.
Ruminant	The name given to a grazing animal that chews its cud and has split hoofs.
Shovel	A tool used in digging and moving soil and other granular materials; it is used for cleaning ditches; also used for leveling a base for sill rocks and steps.
Spade	A tool used to collect animal droppings and manures
Steer	A male cattle that has been castrated before its secondary sex characteristics develop.
Swine	A term collectively used for any of the stout-bodied, short-legged omnivorous mammals with a long mobile snout.
Tool	A device that helps to make the work of men and women easier and faster.
Type	A group of animals that are raised to serve a certain purpose.
Vaccination	An injection of vaccine, bacterin, antiserum or anti-toxin to produce immunity or tolerance to disease.

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

SELECTING AND PROCURING STOCKS GLOSSARY

Bargain	Items that are sold at a very low price.
Characteristic	Qualities and behaviors (of an animal).
Comb	The fleshy crest on the head of a fowl.
Cull	Unproductive birds.
Day-old chicks	Newly-hatched chicks.
Deformities	Physical defects.
Demand	Needs; requirements.
Earlobes	The soft and fleshy thing that protrudes at the lower part of the external ear.
Estimate	To calculate.
Flock	A group of feathered animals such as chickens, ducks, geese, turkey.
Flock	A group of chicken.
Fowl	Generally refers to chicken, ducks, geese, etc.
Full grown pullets	Egg- laying birds that are ready to lay eggs.
Hatchery	A place or establishment where eggs are hatched.
Inferior	Low in quality.
Investment	Capital in an enterprise with the expectation of profit.
Livability	A group of birds with low death rate.
Market	A place where goods are sold.
Market demand	Commodities or goods that people need.
Non- sitters	Fowls that do not sit on their eggs.
Persistent	Enduring; continuous.
Poultry grower	A person who raise chickens; poultry raiser.
Profit	The excess of revenues over outlay in a given time.
Pullets	Young female chicken, not more than one year old.
Purchase	To buy.
Qualities	Essential and distinguishing attributes of an animal.
Selection	The process of choosing and getting the best in a group.
Shank	The leg proper of a bird.
Stocks	Animals used as foundation or parents of the next generation.
Strain	Kind or breed of stock.
Vigorous	healthy; active.

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

PROVIDING FEEDS AND IMPLEMENTING FEEDING PRACTICES GLOSSARY

Absorption or Digestion	The mechanical and chemical breakdown of food into smaller components that are more easily absorbed into a blood stream.
Ad libitum	Means “at one’s pleasure”; in animal feeding, it pertains to the continuous feeding of the animal.
Commercially mixed feeds	feeds of animals intended for sale
Digestion	the process of dissolving food into the stomach, so that it can be turned into available nutrients for the body.
Feed intake	the amount of feeds eaten by the birds
Moistened	slightly wet
Musty	with moldy odor
Nutritious	promoting nutrition, nourishing something
Overfeeding	– feed intake is more than what is required
Ration	the amount of feed given to birds within 24 hours.
Retarded	abnormally slow in development
Self feeder	equipment where feeds are placed
Self feeding	free to take feeds in the feeder
Stale	lost of freshness
Wastage	waste, worthless, loss of materials, minerals or waste products
Absorption	assimilation
Ad libitum	continuous feeding
Commercially mixed feeds	feeds of animals intended for sale
Digestion	the process of dissolving food into the stomach, so that it can be turned into available nutrients for the body.
Feed intake	the amount of feeds eaten by the birds
Moistened	slightly wet
Musty	with moldy odor
Nutritious	promoting nutrition, nourishing something
Overfeeding	feed intake is more than what is required
Ration	the amount of feed given to birds within 24 hours.

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

PROVIDING FEEDS AND IMPLEMENTING FEEDING PRACTICES GLOSSARY

Retarded	abnormally slow in development
Self feeder	equipment where feeds are placed
Self feeding	free to take feeds in the feeder
Stale	lost of freshness
Wastage	waste, worthless, loss of materials, minerals or waste products

BROODING GLOSSARY

Adequate	Meeting the requirements
Brooding	A process of providing artificial heat to the birds from one day old till the time that they can control their own body heat.
Crowding	A condition where there is a large number of birds in a limited space and have no more room for movement
Fixtures	Anything that is fixed in its place.
Humidity	The condition of air moisture in a brooder.
Litter	Materials used to cover floor space.
Requirements	Things needed.
Ventilation	The circulation of air inside and outside the brooder

MAINTAINING PROPER FLOCK MANAGEMENT GLOSSARY

Cannibalism	A condition where birds form the habit of feather-picking, to the extent of eating their companions if not controlled
Cauterize	The burning of wounds or injuries by means of a heated metal, to prevent further infection
Culling	The process of removing unproductive birds from a flock
Debeaking /beak trimming	The removal of a part of the upper and lower beak of a bird.
Flock uniformity	Having more or less equal weight among birds in a flock.
Lighting	Having abundant/sufficient light or illumination.
Molting	The shedding of feathers among poultry birds.
Pigmentation	Color.

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

MAINTAINING PROPER FLOCK MANAGEMENT GLOSSARY

Pliable	Flexible; easily bent.
Pubic Bone	One of the bones that make up the pelvis and is found at the lower part of the abdomen.
Vent	An opening for the escape of a gas or liquid or for the relief of pressure.

PRE AND POST HARVEST ACTIVITIES GLOSSARY

Pewee	A group of small to medium-sized insect-eating birds.
Demand	The need or desire for a particular commodity.
Supply	Pertains to available goods or commodities.
Market	A place where the goods are sold.

PERFORMING PREVENTIVE AND THERAPEUTIC MEASURES GLOSSARY

Disease	Any deviation from the normal conditions of the body.
Hygiene	Cleanliness.
Inclement weather	Bad weather.
Infectious disease	Transmittable disease.
Outbreak	A violent break of disease that affects a large number all at once.
Parasite	An organism that lives on or in another organism to obtain its food
Prevention	An advance measure to eliminate the possible occurrence of pest and disease to the flock
Sanitation	The removal of the disease-causing organisms.
Susceptible	Easily affected.
Vaccine	Live and controlled causal organisms of certain diseases for immunization.
Veterinarian	An animal doctor.
Vaccination	The introduction of live but weak disease, causing an organism to developed immunity

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
AGRI-FISHERY ARTS – ANIMAL PRODUCTION**

CODE BOOK LEGEND

Sample: TLE_AFPA10SM-IVg-j-6

LEGEND		SAMPLE	
First Entry	Learning Area and Strand/ Subject or Specialization	Technology and Livelihood Education_Agri-Fishery Arts - Animal Production	TLE_AF PA 10
	Grade Level	Grade 10	
Uppercase Letter/s	Domain/Content/ Component/ Topic	Breeds of goat and sheep based on breeding records	SM
			-
Roman Numeral <i>*Zero if no specific quarter</i>	Quarter	Fourth Quarter	IV
Lowercase Letter/s <i>*Put a hyphen (-) in between letters to indicate more than a specific week</i>	Week	Week seven to ten	g-j
			-
Arabic Number	Competency	Identify suitable and superior breeds of goats and sheep based on industry standard	6

DOMAIN/ COMPONENT	CODE
Personal Entrepreneurial Skills	PECS
Environment and Marketing	EM
Use and Maintain Tools and Equipment	UT
Perform Estimation and Basic Calculation	MC
Interpret Plans and Drawings	ID
Apply Safety Measures in Farm Operations	OS
Raise Poultry	RP
Raise Small Ruminants	SM



Aquaculture

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
AGRI – FISHERY - ARTS – AQUACULTURE
Grades 7 to 8 (Exploratory)**

Course Description:

This Module is an exploratory and introductory course which leads to **Aquaculture** National Certificate Level II (NC II). It covers **four** common competencies that a Grade 7/Grade 8 Technology and Livelihood Education (TLE) student ought to possess: 1) using tools, equipment and paraphernalia; 2) performing mensuration and calculation; 3) apply safety measures in farm operation; and 4) interpreting technical designs and plans.

The preliminaries of this exploratory course include the following: 1) discussion on the relevance of the course; 2) explanation of key concepts relative to the course and; 3) exploration on career opportunities.

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODING
Introduction 1. Basic concepts in Aquaculture 2. Relevance of the course 3. Career opportunities	The learner demonstrates understanding of basic concepts and underlying theories in aquaculture.	The learner independently demonstrates common competencies in aquaculture as prescribed by TESDA Training Regulations.	1. Explain basic concepts in aquaculture 2. Discuss the relevance of the course 3. Explore career opportunities in aquaculture	
PERSONAL ENTREPRENEURIAL COMPETENCIES (PECS)				
1. Assessment of Personal Competencies and Skills (PeCS) vis-à-vis a practicing entrepreneur/employee 1.1. Characteristics 1.2. Attributes 1.3. Lifestyle 1.4. Skills 1.5. Traits 2. Analysis of PeCS in relation to those of a practicing entrepreneur/employee	The learner demonstrates an understanding of one's Personal Competencies and Skills (PeCS).	The learner recognizes his/her Personal Competencies and Skills (PeCS) and is able to compare these with the PeCS of a practicing entrepreneur/employee involved in aquaculture.	LO 1. Recognize Personal Competencies and Skills (PeCS) needed aquaculture 1.1. Identify and assess one's PeCS: Characteristics, Attributes, Lifestyle, Skills, Traits 1.2. Identify and assess a practitioner's PeCS: Characteristics, Attributes, Lifestyle, Skills, Traits 1.3. Compare self with a practitioner. 1.4. Identify areas for improvement, development and growth	TLE_PECS7/8-00-1
ENVIRONMENT AND MARKET (EM)				
1. Key concepts of Environment & Market 2. Products & services available in the market	Learner demonstrates understanding of the environment and market of aquaculture	The learner independently identifies the products/services available, the customers, and the	LO 1. Recognize and understand the market for aquaculture. 1.1. Identify the different products/services available in the market	TLE_EM7/8-00-1

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODING
3. Concept of differentiation of products & services 4. Concept of Customers and the reasons they buy products & services 5. Competitors in the market		competition within the aquaculture market.	1.2. Enumerate the differences between these products 1.3. Identify who the customers of these products are and the reason these products/services are purchased 1.4. Identify the companies who sell these products/services in the market	
LESSON 1: USE FISHERY TOOLS AND EQUIPMENT (UT)				
1. Fishery tools 2. Safety practices during farm operation 3. Fishery equipment 4. Fishery facilities 5. Preventive maintenance	The learner demonstrates understanding of concepts, underlying theories and principles in the use of tools and equipment in aquaculture.	The learner independently uses tools and equipment in aquaculture according to standard procedure.	LO 1. Select and use fishery tools 1.1. Identify appropriate fishery tools according to requirement 1.2. Check for faulty and defective tools in accordance with farm procedures 1.3. Use appropriate tools and equipment	TLE_AFAQ7/8UT-Ia-1
			LO 2. Select and operate fishery equipment 2.1. Identify fishery equipment and facilities 2.2. Conduct pre-operation check-up in line with manufacturer's manual 2.3. Follow safety precautions 2.4. Identify and report faults and defects of tools 2.5. Use fishery equipment and facilities according to their functions 2.6. Read instructional manuals on farm tools and equipment	TLE_AFAQ7/8UT-Ia-b-2
			LO 3. Perform preventive maintenance 3.1. Follow aquaculture procedures in cleaning tools, equipment and facilities after use 3.2. Perform routine check-up and maintenance 3.3. Store tools and equipment in areas in accordance with farm procedures	TLE_AFAQ7/8UT-Ic-3

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODING
LESSON NO. 2: PERFORM ESTIMATION AND BASIC CALCULATION (MC)				
1. Problem solving procedures 2. Cost estimates of facilities 3. Calendar of activities 4. Systems of measurement 5. Unit of measurement 6. Conversion of units 7. Fractions and decimals 8. Percentage and ratios 9. Simple record keeping	The learner demonstrates understanding of concepts, underlying theories and principles in performing estimation and basic calculations in aquaculture.	The learner independently performs estimation and basic calculations relative to aquaculture.	LO 1. Perform estimation 1.1. Identify job requirements from oral and written communication 1.2. Estimate quantities of materials and resources required to complete a work/task 1.3. Estimate time needed to complete a work/activity 1.4. Make estimate of work materials and resources	TLE_AFAQ7/8MC-Id-1
			LO 2. Perform basic calculations 2.1. Check and complete computed number 2.2. Identify basic calculations to be made according to job requirements 2.3. Ascertain systems and units of measurement to be followed 2.4. Follow the appropriate mathematical operations to comply with the job requirements 2.5. Explain how to review and check results obtained in the computation of mathematical problems 2.6. Calculate whole numbers, fractions, percentages and mixed numbers	TLE_AFAQ7/8MC-Ie-2
LESSON NO. 3: DRAW THE LAYOUT PLANS FOR PONDS, TANKS PENS AND CAGES (ID)				
1. Pond designs 2. Compartments 3. Gate location 4. Types of dikes 5. Characteristics of water 6. Supply canal 7. Shapes of tanks 8. Life support system for tanks	The learner demonstrates understanding of concepts, underlying theories and principles in drawing layout plans for ponds, tanks, pens, and cages.	The learner draws lay-out plans for ponds, tanks, pens and cages in accordance with established standards.	LO 1. Draw layout plans for ponds 1.1. Identify different pond compartments 1.2. Use signs and symbols of plan according to fishpond engineering standards 1.3. Draw layouts of different pond designs according to established procedures	TLE_AFAQ7/8ID-If-1
			LO 2. Draw layout plans for tanks 2.1. Identify different life support systems for tanks 2.2. Use signs and symbols of plan according	TLE_AFAQ7/8ID-Ig-2

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODING
			to fishpond engineering standards 2.3. Draw layouts of different tank designs according to established procedures	
			LO 3. Draw layout plans for pens and cages 3.1. Identify the different life support systems for pens and cages 3.2. Use signs and symbols of plan according to fishpond engineering standards 3.3. Draw layouts of different pens and cages designs according to established procedures	TLE_AFAQ7/8ID-Ih-3
LESSON 4: APPLY SAFETY MEASURES IN FARM OPERATIONS (OS)				
1. Safety Measures 2. Apply Safety Measures 3. Safekeeping/Disposal of tools, materials and outfits 4. Personal Protective Equipment	The learner demonstrates understanding of concepts, underlying theories and principles of applying safety measures in aquaculture.	The learner independently observes safety measures in aquaculture.	LO 1. Apply appropriate safety measures 1.1. Identify work tasks 1.2. Determine place and time for safety measures 1.3. Prepare appropriate tools, materials and outfits 1.4. Use tools and materials accordingly 1.5. Identify hazards 1.6. Wear outfit accordingly 1.7. Observe shelf life 1.8. Follow emergency procedures	TLE_AFAQ7/8OS-Ii-1
			LO 2. Safekeeping/disposal of tools materials and outfit 2.1. Explain how to clean used tools and outfits before storing 2.2. Label unused materials and supplies according to manufacturer's recommendation before storing 2.3. Observe how to dispose waste materials	TLE_AFAQ7/8OS-Ij-2

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
AGRI-FISHERY ARTS - AQUACULTURE
Grade 9 (Specialization)**

Course Description:

This is a specialization course which leads to an **Aquaculture** National Certificate II (NC II). It covers one core competency that a Grade 9 Technology and Livelihood Education (TLE) student ought to possess: conducting pre-operations aquaculture activities.

The preliminaries of this specialization course include the following: 1) discussion on the relevance of the course; 2) explanation of the key concepts relative to the course and; 3) exploration of career opportunities

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<p>Introduction</p> <ol style="list-style-type: none"> 1. Basic concepts in aquaculture 2. Relevance of the course 3. Career opportunities 	The learner demonstrates understanding of basic concepts and underlying theories in aquaculture.	The learner independently demonstrates common competencies in aquaculture 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 on opportunities for Aquaculture as a career or source of extra income 	
PERSONAL ENTREPRENEURIAL COMPETENCIES (PECS)				
<ol style="list-style-type: none"> 1. Assessment of Personal Competencies and Skills (PeCS) vis-à-vis a practicing entrepreneur/employee in the town. <ol style="list-style-type: none"> 1.1. Characteristics 1.2. Attributes 1.3. Lifestyle 1.4. Skills 1.5. Traits 2. Analysis of PeCS in relation to a practitioner 3. Align, strengthen and develop ones PeCS based on the results 	The learner demonstrates understanding of one's Personal Competencies and Skills (PeCS) and what it takes to become successful in the field.	The learner recognizes his/her Personal Competencies and Skills (PeCS) and is able to compare these with the PeCS of a practicing entrepreneur/employee involved in the Aquaculture.	<p>LO 1. Develop and Strengthen Personal Competencies and Skills (PeCS) needed aquaculture</p> <ol style="list-style-type: none"> 1.1. Identify & Assess one's PeCS: Characteristics, Attributes, Lifestyle, Skills, Traits 1.2. Identify successful entrepreneurs/ employees in the town 1.3. Identify & Assess a practitioner's: Characteristics, Attributes, Lifestyle, Skills, Traits 1.4. Compare self with a practitioner 1.5. Identify areas for improvement, development and growth 1.6. Align, strengthen, develop areas based on the results of the PeCS Assessment 	TLE_PECS9-00-1

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
ENVIRONMENT AND MARKET (EM)				
THE MARKET (The Town) 1. Key concepts of the Market 2. Players in the Market (Competitors) 3. Products and services available in the market	The learner demonstrates understanding of the market of aquaculture in the context of the town.	The learner independently identifies the products/services available and the competitors in the town's aquaculture market.	LO 1. Recognize and understand the market for aquaculture 1.1 Identify the players/ competitors within the town 1.2 Identify the different products/services available in the market 1.3 Enumerate the differences between these products/ services	TLE_EM9-00-1
THE MARKET – CUSTOMER 1. Key concepts in Identifying and Understanding the Consumer 2. Consumer Analysis through: 2.1. Observation 2.2. Interviews 2.3. FGDs (Focused Group Discussions) 2.4. Survey	The learner demonstrates understanding of the customers of aquaculture.	The learner independently identifies the customers within the aquaculture market.	LO 2. Recognize the customers in the aquaculture market 2.1. Identify the different customers of the market 2.2. Identify the customers' needs and wants through consumer analysis 2.3. Conduct observation exercises, interviews, Focused Group Discussions (FGD) and a survey	TLE_EM9-00-2
THE MARKET - GENERATING BUSINESS IDEA 1. Key concepts in Generating Business Ideas 2. Knowledge, skills, passions, and interests 3. New applications 4. Irritants	The learner demonstrates understanding of the techniques of generating business ideas.	The learner independently generates business ideas using the various techniques available.	LO 3. Create new business ideas using the various techniques and based on the analyses of the market for aquaculture 4.1. Generate business ideas using knowledge, skills, passions, and interests 4.2. Generate business ideas using new applications (finding new use for existing products/materials) 4.3. Generate business ideas from one's irritants	TLE_EM9-00-3
THE MARKET - GENERATING BUSINESS IDEA 1. Key concepts in Generating Business Ideas 2. Striking ideas (new concept) 3. Serendipity Walk	The learner demonstrates understanding of the techniques used in generating business ideas.	The learner independently generates business ideas using the various techniques available.	LO 4. Create new business ideas using the various techniques and based on the analyses of the market for aquaculture 4.1. Generate business ideas based on striking Ideas	TLE_EM9-00-4

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			4.2. Generate business ideas using the Serendipity Walk	
QUARTER 1 – CONDUCT PRE-OPERATIONS AQUACULTURE ACTIVITIES				
LESSON 1: PREPARATION OF TOOLS AND SIMPLE EQUIPMENT (PT)				
1. Materials in fishpond/fish tank construction 2. Tools used in fishpond/fish tank construction 3. Types of finishing materials for fishpond/fish tanks 4. Construction materials 5. Inspection of condition of tools	The learner demonstrates understanding of the preparation of construction materials and tools in fishpond/fish tank construction.	The learner independently prepares appropriate materials and tools in fishpond/fish tank construction based on industry standards.	LO 1. Prepare tools and materials in fishpond/fish tank construction 1.1. Check and clean tools and equipment 1.2. Check harvesting tools 1.3. Perform simple repairs 1.4. Inspect materials for possible repair	TLE_AFAQ9PT-Ia-j-1
QUARTER 2 – CHANGING WATER OF AQUACULTURE FACILITY				
1. Sources of water 2. Quantity 3. Quality 4. Drainage 5. Methods of changing water 6. Types of water 6.1. Freshwater 6.2. Saline water 6.3. Brackish water 6.4. Water exchange			1.5. Determine the volume of water 1.6. Select appropriate method of water exchange 1.7. Carry out water exchange	TLE_AFAQ9PT-IIa-j-1
QUARTER 3 – MORTALITIES				
1. Mortality 1.1. Monitor and collect mortalities 1.2. How to calculate mortality rate 1.3. Analyze factors leading to mortality 2. Predator 2.1. Types of predator 2.2. How to reduce mortality 2.3. The use of disinfectant			1.8. Determine and analyze mortality 1.9. Check and prevent predators 1.10. Determine the causes of mortality 1.11. Observe the precautionary measures in reducing mortality 1.12. Follow steps in using disinfectants	TLR_AFAQ9PT-IIIa-j-1
QUARTER 4 – PREPARE AND SECURE AQUACULTURE FACILITIES				
1. Prepare facilities 2. Pond construction			1.13. Prepare ponds, cages and frames 1.14. Brush and repair cages and frames	TLE_AFAQ9PT-IVa-j-1

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
3. Tank construction 4. Cage and frames 5. Nets 6. Cleaning 7. How to store tools 8. Structures during inclement weather			1.15. Clean and disinfect tanks 1.16. Install structures during inclement weather 1.17. Store tools and equipment properly	

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
AGRI-FISHERY ARTS - AQUACULTURE
Grade 10 (Specialization)**

Course Description:

Prerequisite: Grade 9 Aquaculture

This is a specialization course which leads to **Aquaculture** National Certificate II (NC II). It covers one core competency that a Grade 10 Technology and Livelihood Education (TLE) student ought to possess: preparing and maintaining aquaculture facilities. The preliminaries of this specialization course include the following: 1) a 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				
1. Basic concepts in aquaculture 2. Relevance of the course 3. Career opportunities	The learner demonstrates understanding of basic concepts and underlying theories in aquaculture.	The learner independently demonstrates common competencies in aquaculture as prescribed by TESDA Training Regulations	1. Explain basic concepts in aquaculture 2. Discuss the relevance of the course 3. Explore on opportunities for Aquaculture as a career or source of extra income	
PERSONAL ENTREPRENEURIAL COMPETENCIES (PECS)				
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) and what it takes to become successful in the field.	The learner recognizes his/her Personal Competencies and Skills (PeCS) and is able to compare these with the PeCS of a practicing entrepreneur/employee involved in aquaculture	LO 1. Develop and strengthen Personal Competencies and Skills (PeCS) needed in aquaculture 1.1. Identify and assess one's PeCS: Characteristics, Attributes, Lifestyle, Skills, Traits 1.2. Identify successful entrepreneurs/employees in the province 1.3. Identify and assess a practitioner's PeCS: Characteristics, Attributes, Lifestyle, Skills, Traits 1.4. Compare self with a practitioner 1.5. Identify areas for improvement, development and growth 1.6. Align, strengthen, develop areas based on the results of the PeCS Assessment	TLE_PCS10-00-1
ENVIRONMENT AND MARKET (EM)				
THE MARKET (The Province) 1. Key concepts of the Market 2. Players in the Market(Competitors) 3. Products & services available in the market	The learner demonstrates understanding of the market of aquaculture in the context of the province.	The learner independently identifies the products/services available and the competitors in the province's aquaculture market.	LO 1. Recognize and understand the market for aquaculture 1.1 Identify the players/ competitors within the province 1.2 Identify the different products/services	TLE_EM10-00-1

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			1.3 available in the market Enumerate the differences between these products/ services	
THE MARKET – PRODUCT DEVELOPMENT 1. Key concepts in developing a product 2. Finding Value 3. Innovation 4. Unique Selling Proposition (USP)	The learner demonstrates understanding of developing a product in aquaculture.	The learner independently identifies the customers of the aquaculture market.	LO 2. Develop a product for the aquaculture market 2.1. Identify what is of “Value” to the customer 2.2. Identify the Customer 2.3. Define and identify what makes a product different 2.4. Enumerate and apply creativity and innovation techniques in order to develop a product that stands out. 2.5. Identify the unique selling proposition (USP) of the product	TLE_EM10-00-2
THE MARKET - SELECTING BUSINESS IDEA 1. Key concepts in Selecting a Business Idea 2. Criteria 3. Techniques	The learner demonstrates understanding of the techniques used in selecting business ideas.	The learner independently selects a viable business idea.	LO 3. Select a business idea for the aquaculture market based on the criteria and techniques provided 3.1. Identify potential business ideas to select from 3.2. Enumerate the various criteria and steps to selecting a business idea 3.3. Apply the criteria/steps in order to select a viable business idea. 3.4. Identify a business idea based on the criteria/steps provided	TLE_EM10-00-3
THE MARKET – BRANDING 1. Key concepts of Branding	The learner demonstrates an understanding of branding and develops a brand for their business idea.	The learner independently generates a brand for their business idea.	LO 4. Develop a brand for the product 4.1. Identify the benefits of having a good brand 4.2. Enumerate recognizable brands in the town/province 4.3. Enumerate the criteria for developing a brand 4.4. Generate a brand that is clear and follows the techniques of generating a brand	TLE_EM10-00-4

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
QUARTER 1				
LESSON 1: PREPARE AND MAINTAIN AQUACULTURE FACILITIES (PM)				
1. Classification of tools and equipment: 1.1. Functional 1.2. Non functional 2. Site Evaluation 3. Soil analysis 4. Water retention/water holding capacity 5. Topography 6. Natural food 7. Suitable species for tanks, ponds, pens and cages 8. Area of pond/tanks 9. Water analysis	The learner demonstrates understanding of the underlying concepts and principles in the maintenance of aquaculture facilities.	The learner independently performs proper maintenance of aquaculture facilities based on industry standards.	LO 1. Check the condition of site 1.1. Sample and analyze the soil for water holding capacity 1.2. Determine the volume of water resources 1.3. Assess the quality of water 1.4. Measure the topography of the site 1.5. Determine the sources of natural food 1.6. Determine the suitable species to culture 1.7. Read the tidal level 1.8. Determine the area of the tank and the budget for its construction 1.9. Analyze water	TLE_AFAQ10P M-Ia-j-1
QUARTER 2				
Layout of ponds, tanks, pens and cages 1. Nets and mesh size 2. Material cost 3. Species appropriate for tanks, ponds, pens and cages 4. Budgetary cost of ponds, tanks, pens, and cages 5. Frames 6. Other important facilities			Ponds 1.10. Determine the area, depth and the number and size of compartments 1.11. Position the markers as guides 1.12. Determine the materials used 1.13. Determine the number of pumps and their location 1.14. Plan for the other important facilities	TLE_AFAQ10P M-IIa-j-1
QUARTER 3				
1. Area 2. Depth 3. Number and size of compartments 4. Markers 5. Number of pumps 6. Location of pumps 7. Materials used 8. Other facilities			Tanks 1.15. Determine the area, depth and the number and size of compartments 1.16. Position the markers as guides 1.17. Determine the materials used 1.18. Determine the number of pumps and their location 1.19. Plan for the other important facilities Pens 1.20. Determine the area, depth and the	TLE_AFAQ10P M-IIIa-j-1

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			number and size of compartments 1.21. Determine the materials used Cages 1.22. Determine the area, depth, and the number and size of compartments 1.23. Determine the materials used 1.24. Determine the mesh size	
QUARTER 4				
1. Mobile resources and carry-out installation of facilities 2. Major support 3. Life support 4. Position of the equipment 5. Netting materials 6. Floats and sinkers 7. Mooring system 8. Bottom of the net			Ponds 1.25. Prepare construction resources 1.26. Install major and other support facilities 1.27. Install life support facilities Tanks 1.28. Install life support facilities 1.29. Lay out facilities Pens 1.30. Fabricate netting materials, floats and sinkers 1.31. Inspect and set-up nets Cages 1.32. Check bottom of net 1.33. Check mooring system 1.34. Set-up net	TLE_AFAQ10-IVa-j-1

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

GLOSSARY

Dikes	An embankment of earth and rock built to prevent floods or to hold irrigation water in for agricultural purposes
Brackish water	Briny water is water that has more salinity than fresh water, but not as much as seawater. It may result from mixing of seawater with fresh water, as in estuaries, or it may occur in brackish fossil aquifers.
Compartments	a separate section or part of a structure or container; One of the parts or spaces into which an area is subdivided.
Culture	The cultivation of plants, especially by scientific methods designed to improve stock or to produce new ones
Drainage	1) The natural or artificial removal of surface and sub-surface water from an area; (2) The action or a method of draining.
Frames	To conceive or design; To build by putting together the structural parts of; construct
Freshwater	Is naturally occurring water on the Earth's surface in ice sheets, ice caps, glaciers, icebergs, bogs, ponds, lakes, rivers and streams, and underground as groundwater in aquifer sand underground streams. Fresh water is generally characterized by having low concentrations of dissolved salts and other total dissolved solids.
Inclement weather	unpleasant weather which is stormy or rainy
Life support system	Is any natural or human-engineered (constructed or made) system that furthers the life of the biosphere in a sustainable fashion. 2) an artificial or natural system that provides all or some of the items (as oxygen, food, water, control of temperature and pressure, disposition of carbon dioxide and body wastes) necessary for maintaining life or health
mesh size	Is a term that refers to the extensiveness of apertures within a mesh network used to sort or standardize granular material. It may also be used to sort cereals in a factory. The larger the aperture the larger the mesh size; An open fabric of string or rope or wire woven together at regular intervals
Mooring system	A mooring system is made up of a mooring line, anchor and connectors, and is used for station keeping of a ship or floating platform in all water depths. A mooring line connects an anchor on the seafloor to a floating structure.
Mortality	An organism that lives by preying on other organisms; an animal that hunts and seizes other animals for food.
Natural food	The term is assumed to imply foods that are minimally processed and do not contain manufactured ingredients, mostly available in the environment.
Netting materials	anything that are utilized in making fish nets
Saline water	Is a general term for water that contains a significant concentration of dissolved salts. The salt concentration is usually expressed in parts per thousand or parts per million
Sinkers	One that sinks, as a weight used for sinking fishing lines or nets.
Species	Is one of the basic units of biological classification and a taxonomic rank. A species is often defined as a group of organisms capable of interbreeding and producing fertile offspring; A group of animals or plants that are similar and can produce young animals or plants : a group of related animals or plants that is smaller than a genus

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

GLOSSARY

Supply canal	An artificial waterway for navigation or for draining or irrigating land; a long narrow place that is filled with water and was created by people so that boats could pass through it or to supply fields, crops, etc., with water
tidal level	An exceptionally large ocean wave, especially one caused by an underwater earthquake or volcanic eruption; An unusual, often destructive rise of water along the seashore, as from a storm or a combination of wind and high tide.
Topography	The arrangement of the natural and artificial physical features of an area; detailed, precise description of a place or region; graphic representation of the surface features of a place or region on a map, indicating their relative positions and elevations.
Water exchange	The volume and rate of water exchange between air and a body of water in a specific location, or between several bodies of water, controlled by such factors as tides, winds, river discharge, and currents.
Water retention/water holding	The capacity of anything to retain or hold water or one that does not permit water to percolate, seep or escape

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CODE BOOK LEGEND

Sample: TLE_AFAQ9UT-Ia-j-1

LEGEND		SAMPLE	
First Entry	Learning Area and Strand/ Subject or Specialization	Technology and Livelihood Education_Agri-Fishery Aquaculture	TLE_AF AQ 9
	Grade Level	Grade 9	
Uppercase Letter/s	Domain/Content/ Component/ Topic	Preparation of tools and simple equipment	UT
			-
Roman Numeral <i>*Zero if no specific quarter</i>	Quarter	First Quarter	I
Lowercase Letter/s <i>*Put a hyphen (-) in between letters to indicate more than a specific week</i>	Week	Week One to Ten	a-j
			-
Arabic Number	Competency	Prepare tools and materials in fishpond/fish tank construction	1

DOMAIN/ COMPONENT	CODE
Personal Entrepreneurial Skills	PECS
Environment and Marketing	EM
Use and Maintain Tools and Equipment	UT
Perform Estimation and Basic Calculation	MC
Draw the Layout Plans for Ponds, Tanks, Pens and Cages	ID
Apply Safety Measures in Operations	OS
Prepare and Maintain Aquaculture Facilities	PM
Preparation of Tools and Simple Equipment	PT
Prepare and Maintain Aquaculture Facilities	PM



Horticulture

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
AGRI – FISHERY ARTS – HORTICULTURE
Grade 7/8 (Exploratory)**

Course Description:

This Module is an exploratory and introductory course which leads to **Horticulture** National Certificate Level II (NC II). It covers **four** common competencies that a Grade 7/Grade 8 Technology and Livelihood Education (TLE) student ought to possess: 1) using tools, equipment and paraphernalia; 2) performing mensuration and calculation; 3) practicing Occupational Health and Safety (OHS) procedures; and 4) interpreting technical drawing and plans.

The preliminaries of this exploratory 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 1. Basic concepts in agriculture crop production 2. Relevance of the course 3. Career opportunities	The learner demonstrates understanding of basic concepts and underlying theories in horticulture.	The learner independently demonstrates common competencies in horticulture as prescribed by TESDA Training Regulations.	1. Explain basic concepts in horticulture 2. Discuss the relevance of the course 3. Explore career opportunities for horticulture	
PERSONAL ENTREPRENEURIAL COMPETENCIES				
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 those of a practicing entrepreneur/employee 3. Align, strengthen and develop one's PECS based on the results	The learner demonstrates understanding of ones Personal Competencies and Skills (PECS).	The learner recognizes his/her Personal Competencies and Skills (PECS) and is able to compare these with the PECS of a practicing entrepreneur/ employee involved in Horticulture.	LO 1. Recognize Personal Competencies and Skills (PECS) needed in Horticulture 1.1. Identify and assess ones PECS: Characteristics, Attributes, Lifestyle, Skills, Traits 1.2. Identify and assess a practitioner's PECS: Characteristics, Attributes, Lifestyle, Skills, Traits 1.3. Compare self with a practitioner 1.4. Identify areas for improvement, development and growth	TLE_PECS7/8-00-1
ENVIRONMENT AND MARKET				
1. Key concepts of Environment & Market 2. Products & services available in the market 3. Concept of differentiation of products	Learner demonstrates understanding of the environment and market of Horticulture	The learner independently identifies the products/services available, the customers, and the competition within the horticulture market.	LO 1. Recognize and understand the market for Horticulture 1.1. Identify the different products/services available in the market 1.2. Enumerate the differences between	TLE_EM7/8-00-1

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
& services 4. Concept of Customers and the reasons they buy products & services 5. Competitors in the market			these products 1.3. Identify the customers of these products and the reason these products/services are purchased 1.4. Identify the companies selling these products/services	
LESSON 1: USE AND MAINTAIN FARM TOOLS AND EQUIPMENT (UT)				
1. Farm tools 2. Farm equipment 3. Parts and functions of farm tools and equipment 4. Safety practices 5. Preventive maintenance 6. Upkeep of equipment	The learner demonstrates understanding of basic concepts, underlying theories and principles in using farm tools and equipment in horticulture.	The learner uses farm tools and equipment in horticulture based on the required task.	LO 1. Select farm tools 1.1. Identify appropriate farm tools according to requirement 1.2. Check farm tools for faults and defects in accordance with farm procedures 1.3. Use appropriate tools and equipment safely according to job requirements and manufacturer's instructions 1.4. Use farm tools	TLE_AFHC7 /8UT-0a-1
			LO 2. Operates farm equipment 2.1. Identify appropriate farm equipment and facilities 2.2. Follow directions in the instructional manual of farm equipment prior to operation 2.3. Conduct pre-operation check-up in line with manufacturer's manual 2.4. Report faults in farm equipment and facilities in line with farm procedures 2.5. Use farm equipment according to their functions 2.6. Follow safety procedures	TLE_AFHC7 /8UT-0b-2
			LO 3. Perform preventive maintenance 3.1. Discuss procedures in cleaning tools and equipment in line with farm procedures immediately after use 3.2. Explain the steps in performing routine check-up and maintenance operations 3.3. Store tools and equipment in designated areas	TLE_AFHC7 /8UT-0c-3

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			3.4. Observe how to sharpen and oil farm tools and equipment	
LESSON NO. 2: PERFORM ESTIMATION AND BASIC CALCULATION (MC)				
1. Problem solving procedures in fertilizer computation 2. Basic mathematical operations in solving problems related to horticulture 3. Simple project proposal 4. Systems of measurement 5. Units of measurement 6. Conversion of units 7. Fractions and decimals 8. Percentage and ratios 9. Basic record keeping	The learner demonstrates understanding of basic concepts, underlying theories and principles in performing estimations and basic calculations in horticulture.	The learner performs estimations and basic calculations related to horticulture.	<p>LO 1. Perform estimation</p> 1.1 Identify job requirements 1.2 Estimate quantities of materials and resources required to complete a work task 1.3 Estimate time needed to complete a work/activity 1.4 Make a cost estimate of materials and labor to complete a task 1.5 Report estimate of materials and resources 1.6 Determine cost and return when producing crops 1.7 Determine profit and/or loss using the four fundamental operations 1.8 Determine the price of a product using mark-up percentage	<p>TLE_AFHC7 /8MC-0d-e-1</p> <p>TLE_AFHC7 /8MC-0f-2</p>

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
LESSON 3: INTERPRETATION PLANS AND DRAWINGS (ID)				
1. Farm plans and drawings 2. Types of planting 3. Interpreting and reading planting system 4. Staking procedures 5. Use of planting board 6. Layout of irrigation system 7. Types of irrigation system	The learner demonstrates understanding of basic concepts, underlying theories and principles in interpreting plans and drawings of farms and irrigation systems.	The learner interprets plans and drawings of farms and irrigation systems in horticulture.	LO 1. Interpret farm plans and layout 1.1 Interpret planting system according to established farm procedures 1.2 Design farm plans and layout 1.3 Stake site according to planting system	TLE_AFHC7 /8ID-0g-1
			LO 2. Interpret irrigation plans and designs 2.1. Interpret irrigation system plan according to established procedures 2.2. Differentiate the designs of irrigation system according to standard procedures	TLE_AFHC7 /8ID-0g-2
LESSON 4: APPLY SAFETY MEASURES IN FARM OPERATIONS (OS)				
1. Farm chemicals 2. Personal protective equipment 3. First aid 4. Emergency procedures 5. Safe working environment 6. Procedure in cleaning and storing tools and outfits 7. Technique in storing materials and chemicals 8. Waste disposal 9. Water management system	The learner demonstrates understanding of basic concepts, underlying theories and principles in applying safety measures in farm operations.	The learner observes safety measures in farm operations in horticulture.	LO 1. Apply appropriate safety measures while working in the farm 1.1 Apply safety measures based on work requirement and farm procedures 1.2 Utilize tools and materials in accordance with specifications and procedures 1.3 Follow the guidelines in wearing outfits in accordance with farm requirements 1.4 Explain the importance of checking shelf life and/or expiration of materials’ effectivity against manufacturer’s specifications 1.5 Differentiate the hazards in workplaces and report these in line with guidelines 1.6 Observe how to respond to emergencies in the farm 1.7 Discuss how to prevent accidents	TLE_AFHC7 /8OS-0h-1
			LO 2.Safekeeping/disposal of tools, materials and outfits 2.1. Explain how to clean used tools and outfit following the farm procedures before storing 2.2. Label unused materials and supplies according to manufacturer’s	TLE_AFHC7 /8OS-0i-j-2

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			recommendation and farm requirements before storing 2.3. Observe how to dispose waste materials according to manufacturers', government and farm requirements	

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
AGRI – FISHERY ARTS – HORTICULTURE
GRADE 9 (Specialization)**

Course Description:

This is a course in **HORTICULTURE** leading to National Certificate Level II (NC III) consisting of the core competencies that a person must achieve on conducting pre-horticultural farm operations.

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<p>Introduction</p> <ol style="list-style-type: none"> Concepts and competencies in performing pre-horticultural farm operations Career Opportunities in Horticulture Farm Operations 	The learner demonstrates understanding of one’s Personal Competencies (PEC’s) across horticultural products and services	The learner recognizes his/her Personal Competencies (PEC’s) across horticultural products and services and prepares an activity plan that aligns with that of a practitioner/ entrepreneur in Horticulture	<ol style="list-style-type: none"> Explain the different factors to be considered in setting up a business Assess one’s PEC’s, such as, characteristics, lifestyle features , and skills Assess practitioner’s entrepreneurial competencies, such as, characteristics, attributes, lifestyle, skills, and traits 	
QUARTER 1: DEVELOPING PERSONAL ENTREPRENEURIAL COMPETENCIES ACROSS ENVIRONMENT AND MARKET				
LESSON 1: ENTREPRENEURSHIP AND PERSONAL ENTREPRENEURSHIP COMPETENCIES (PECS)				
<ol style="list-style-type: none"> Nature of entrepreneurial activities Assessment of Personal Competencies and Skills (PECS) vis-à-vis a practicing entrepreneur/ employee in locality/town <ol style="list-style-type: none"> Characteristics Lifestyle Skills Analysis of PECS in relation to a practitioner Align, strengthen and develop ones PECS based on the results 	The learner demonstrates understanding of one’s Personal Competencies and Skills (PECS) in Horticulture.	The learner recognizes his/her Personal Entrepreneurial Competencies and Skills (PECSs) and prepares an activity plan that aligns with that of a practitioner/entrepreneur in Horticulture.	<p>LO 1. Know the nature of an entrepreneurial activity in relation to Personal Entrepreneurial Competencies and Skills (PECS) needed in Horticulture</p> <ol style="list-style-type: none"> Know the different factors considered in setting up businesses Identify the characteristics, lifestyle, skills of successful entrepreneurs Assess one’s PECSs: characteristics, attributes, lifestyle, skills, traits Assess practitioner’s: characteristics, attributes, lifestyle, skills, traits Compare one’s PECSs with that of a practitioner /entrepreneur Align one’s PECSs with that of a practitioner/entrepreneur 	TLE_AFHC9PECS-Ia-e-1
LESSON 2: UNDERSTANDING THE ENVIRONMENT AND MARKET OF BUSINESSES (EM)				
<p>Market (Town)</p> <ol style="list-style-type: none"> Key concepts of Market Players in the Market 	The learner demonstrates understanding of environment and market in	The learner independently creates a business vicinity map reflective of potential	LO 1. Recognize and understand the influence of the market and environment in businesses	TLE_AFHC9EM-If-j-1

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
(Competitors) 3. Products & services available in the market	Horticulture in one's town/municipality.	Horticulture market within the locality/town.	1.1 Market characteristics 1.2 Forms of businesses across industries 1.3 Needs and demands through environmental scanning 1.4 4M's of production 1.5 Start-up capital, site selection, hiring, registering a business, and record keeping 1.6 SWOT 1.7 Business Plan	
QUARTER 2: CONDUCT OF PRE-HORTICULTURAL FARM OPERATIONS <i>(Note: Research components should be included in all activities)</i> LESSON 3: PREPARING FARM TOOLS, IMPLEMENTS AND SIMPLE EQUIPMENT FOR HORTICULTURAL FARM OPERATIONS (PT)				
1. Identification and classification of farm tools, farm implements and simple equipment <u>Tools</u> 1. Digging tools 2. Harvesting tools 3. Measuring tools, etc.) <u>Farm implements/ Simple Equipment</u> 1. Water pumps 2. Hand tractor 3. Plow and Harrow 4. Sprayer 2. Safety precautions in preparing tools, farm implements and simple equipment 3. Basic pre-operative checking of tools, farm implements and equipment in accordance with manufacturer's manual 4. Treating tools with wear and corrosions 5. Friction			LO 1. Prepare tools, farm implements, and simple equipment for horticultural operations 1.1. Identify and classify tools, farm implements and simple equipment according to its usage 1.2. Perform basic pre-operative checking of tools, farm implements and equipment in accordance with manufacturer's manual 1.3. Segregate and treat tools with wear and corrosions	TLE_AFHC9PT-IIa-j-1

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
QUARTER 3: CONDUCT OF PRE-HORTICULTURAL FARM OPERATIONS <i>(Note: Research components should be included in all activities)</i>				
LESSON 4: OBSERVING SAFETY PRECAUTIONS IN HORTICULTURAL FARM OPERATIONS (OH)				
1. Preventing Hazards in the Workplace 1.1. Presence of wildlife in the workplace 1.2. Exposure to fumes and solar radiation 1.3. Adverse weather conditions 1.4. Hazardous substances like fuel, grease, and oil spills 2. Maintenance activities of nursery facilities 3. Safety measures/pre-caution in preparing and maintaining farm			LO 1. Prepare and maintain farm facilities 1.1. Prevent workplace hazards and environmental implications with maintenance procedures 1.2. Perform maintenance activities to maximize efficiency and effectiveness of nursery facilities	TLE_AFHC9OH-IIIa-j-1
QUARTER 4: CONDUCT OF PRE-HORTICULTURAL FARM OPERATIONS <i>(Note: Research components should be included in all activities)</i>				
LESSON 5: MAINTENANCE ACTIVITIES OF FARM FACILITIES (AF)				
1. Maintenance activities of facilities 1.1. Pump house 1.2. Mechanical drier 1.3. Storage house 1.4. Machine shed 1.5. Drainage system 2. Setting up preventive structures during inclement weather 3. Safekeeping of equipment every after use 4. Principle of 5S 5. Securing post-harvest tools			LO 1. Secure tools, farm implements/equipment and facilities 1.1. Perform maintenance activities to maximize efficiency and effectiveness of facilities 1.2. Set up preventive structures during inclement weather 1.3. Store tools, farm implements and equipment according to approve practice	TLE_AFHC9AF-IVa-j-1

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
AGRI – FISHERY ARTS – HORTICULTURE
GRADE 10 (Specialization)**

Course Description:

This is a course in **HORTICULTURE** leading to **NC II** Qualification consisting of the core competencies that a person must achieve in producing major lowland and semi temperate vegetables.

Prerequisite: Grade 9 Horticulture

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
INTRODUCTION				
1. Concepts and competencies in producing major lowland and semi-temperate vegetables 2. Opportunities in Vegetables Crop Production	The learner demonstrates understanding of core concepts and competencies in producing major lowland and semi-temperate vegetables.	The learner independently demonstrates core competencies in producing major lowland and semi temperate vegetables as prescribed in the TESDA Training Regulation.	1. Explain concepts and perform core competencies on producing major lowland and semi temperate vegetables 2. Explore job opportunities that one can venture into after taking the course	
PERSONAL ENTREPRENEURIAL COMPETENCIES (PECS)				
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 ones Personal Competencies and Skills (PECS) and what it takes to become successful in the field.	The learner recognizes his/her Personal Competencies and Skills (PECS) and is able to compare these with the PECS of a practicing entrepreneur/employee involved in horticulture.	LO 1. Develop and Strengthen Personal Competencies and Skills (PECS) needed in Horticulture 1.1. Identify & Assess ones PECS: Characteristics, Attributes, Lifestyle, Skills, Traits 1.2. Identify successful entrepreneurs/employees in the province. 1.3. Identify & Assess a practitioner's: Characteristics, Attributes, Lifestyle, Skills, Traits 1.4. Compare self with a practitioner. 1.5. Identify areas for improvement, development and growth 1.6. Align, strengthen, develop areas based on the results of the PECS Assessment	TLE_PECS10-00-1
ENVIRONMENT AND MARKET (EM)				
THE MARKET (The Province) 1. Key concepts of the Market 2. Players in the Market (Competitors) 3. Products & services available in the market	The learner demonstrates understanding of the market of horticulture in the context of the province.	The learner independently identifies the products/services available and the competitors within the province's horticulture market.	LO 1. Recognize and understand the market for horticulture 1.1 Identify the players/competitors within the province 1.2 Identify the different products/services	TLE_EM10-00-1

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			available in the market 1.3 Enumerate the differences between these products/services	
THE MARKET – PRODUCT DEVELOPMENT 1. Key concepts of developing a product 2. Finding Value 3. Innovation 4. Unique Selling Proposition (USP)	The learner demonstrates understanding of developing a product in Horticulture	The learner independently identifies: the customers of within the Horticulture market.	LO 2. Develop a product for the provincial market. 2.1. Identify what is of “Value” to the customer. 2.2. Identify the Customers 2.3. Define and identify what makes a product different 2.4. Enumerate and apply creativity and innovation techniques in order to develop a product that stands out. 2.5. Identify the Unique Selling Proposition (USP) of the product	TLE_EM10-00-2
THE MARKET - SELECTING BUSINESS IDEA 1. Key concepts in Selecting a Business Idea 2. Criteria 3. Techniques	The learner demonstrates understanding of the techniques of selecting business ideas.	The learner independently selects a viable business idea.	LO 3. Select a business idea for the Horticulture market based on the criteria and techniques provided 3.1. Identify potential business ideas to select from 3.2. Enumerate the various criteria and steps to selecting a business idea 3.3. Apply the criteria/steps in order to select a viable business idea. 3.4. Identify a business idea based on the criteria/steps provided	TLE_EM10-00-3
THE MARKET – BRANDING Key concepts of Branding	The learner demonstrates understanding of branding and develops a brand for their business idea.	The learner independently generates a brand for their business idea.	LO 4. Develop a brand for the product. 4.1. Identify the benefits of having a good brand 4.2. Enumerate recognizable brands in the town/province 4.3. Enumerate the criteria for developing a brand 4.4. Generate a brand that is clear and follows the techniques of generating a brand	TLE_EM10-00-4

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
QUARTER 1 LESSON : PRODUCE VEGETABLES <i>(Note: Research component should be included in the activities)</i> MODULE 1: PREPARE LAND FOR PLANTING				
1. Collection of samples for soil analysis 1.1. Importance of Soil Sampling 1.2. Guidelines in collecting soil samples 1.3. Procedure in Soil Sampling			LO 1. Prepare land for planting 1.1. Collect soil samples for soil analysis	TLE_AFHC10P V-Ia-j-1
2. Soil laboratory analysis using 2.1. Soil testing Kit (STK) and 2.2. Soil Laboratory Analysis 2.3. Procedure in soil analysis 2.4. CEC 2.5. NPK ratio			1.2. Conduct soil analysis	
3. Interpretation of the results of soil analysis 3.1. Recommendation based on the manual of the DA standards & procedures 3.2. Basic calculations			1.3. Interpret the result of soil analysis	
4. Farm implements and equipment used in preparing land for planting 4.1. Safety measures in proper use of farm equipments 4.2. Types and function of Farm Tillage Implements 4.3. Advantages of using farm tillage implements			1.4. Choose and use right farm implements and equipment	
5. Proper land preparation using plow and harrow 5.1. Importance of land preparation & tillage 5.2. Common method and tillage for lowland & upland 5.3. Land preparation procedure			1.5. Clear, plow and harrow of the area	

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
5.4. Seedbed/seedplot preparation 5.5. Operation of Farm equipment 6. Safety precautions in operating farm tools and equipment 6.1. Procedure in the use of power tools and equipment 6.2. Safety precaution guidelines in operating farm tools and equipment			1.6. Observe safety precautions in operating farm tools and equipment	
QUARTER 2 LESSON : PRODUCE VEGETABLES <i>(Note: Research component should be included in the activities)</i> MODULE 2: GROWING SEEDLING				
1. Characteristics of good quality seeds 1.1 -Damage free 1.2 -True-to-type 1.3 -Viable 1.4 -Free from mixture 1.5 -Free from seed-borne disease 1.6 Types of seed 1.7 Seed certification standard			LO 1. Grow seedlings 1.1. Procure and select good quality seeds	TLE_AFHC10P V-IIa-j-2
2. Seed germination test 1.1 Importance of Seed Germination Test 1.2 Methods of Seed Germination Test 2.1.1 Ragdoll Method 2.1.2 Petri Dish 2.1.3 Seed bed 2.1.4 Seedbox 2.3. Procedure in Seed 2.4. Germination Test following the three methods: 2.4.1 Computing Percentage 2.4.2 Seed Germination 2.4.3 Safety precaution in using chemicals			1.2. Conduct seed testing	

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
3. Composition of growing media 3.1. Importance of 3.2. Growing Media 3.3. Characteristics of a Good Growing Media 3.4. Composition of a Good Growing Media 3.4.1 1 part garden soil 3.4.2 1 part Sieved sand 3.4.3 1 part Compost 3.4.4 1 part Sawdust/Ricehull 3.5. Procedure in proper mixing growing media using the ratio and proportion			1.3. Identify and mix components and proportion of different growing media	
4. Sterilization of growing media 4.1. Importance of sterilizing the growing media 4.2. Methods in sterilizing the growing media 4.2.1 Heat Treatment 4.2.2 Chemical Treatment 4.3. Procedure in sterilizing the growing media			1.4. Sterilize growing media	
5. Sowing Seeds 5.1. Proper seed growing techniques 5.2. Stages and seed germination 5.3. Amount depth of sowing seed 5.4. Importance of seed sowing			1.5. Sow seeds on tray compartments	
6. Pre-cultural Management Practices 6.1. Irrigation system 6.2. Chemical to use in fertilizing and controlling pests 6.3. IPM 6.4. Fert. Management (FPA) 6.5. Safety measures in spraying			1.6. Perform pre-cultural management practices	

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
chemicals 6.6. Calibration of sprayer 6.7. Plant pest, diseases, and treatment 6.8. Vegetable production manual 6.9. Crop Protection				
QUARTER 3 LESSON : PRODUCE VEGETABLES <i>(Note: Research component should be included in the activities)</i> MODULE 3: TRANSPLANTING SEEDLINGS				
1. Fertilizer application 1.1. Importance of Fertilizer Application 1.2. Types of Fertilizer 1.3. Sources of Fertilizer 1.4. Methods of Fertilizer Application 1.5. Time and frequency of fertilizer application 1.6. Fertilizer computation 1.7. Fertilizer management safety precaution			LO 1. Transplant seedlings 1.1. Apply fertilizers based on the result of soil analysis	TLE_AFHC10P V-IIIa-j-3
2. Mulching 2.1. Importance of mulching 2.2. Kinds of Mulching materials 2.3. Polyethelene plastic film 2.4. Rice straw 2.5. Cut grasses 2.6. Procedure in Applying Mulch 2.7. Characteristics of mulches			1.2. Apply mulching materials	
3. Transplanting seedling 3.1. Distance and depth of planting 3.2. Characteristics of good quality seeds 3.3. Procedures and recommendation on			1.3. Transplant seedlings following the right recommendation	

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
transplanting				
4. Management of newly transplanted seedlings techniques in: 4.1. Shading 4.2. Watering			1.4. Perform post-planting care on newly transplanted seedlings	
QUARTER 4				
LESSON : PRODUCE VEGETABLES <i>(Note: Research component should be included in the activities)</i>				
MODULE 4: MAINTAINING GROWTH OF VEGETABLES				
1. Soil cultivation 1.1. Importance of soil cultivation 1.2. Appropriate tools and methods to be used in soil cultivation 1.3. Types of soil cultivation			LO 1. Maintain growth of vegetables 1.1. Apply proper cultivation method for particular crop	TLE_AFHC10P V-IVa-j-1
2. Fertilizer application 2.1. Fertilizers and chemical computation 2.2. Recommended rate data 2.3. Methods, time and kinds of application 2.4. Factors to consider in selecting chemicals to use 2.5. Knowledge in the proper application of chemicals 2.6. Calibration of sprayer 2.7. FPA			1.2. Apply fertilizers and chemicals	
3. Irrigation 3.1. Importance of irrigation 3.2. Methods of Irrigation 3.2.1. Over head (mist, sprinkler) 3.2.2. Surface (Furrow, drip, sub surface) 3.3. Safety precaution/measures in proper use of tools and equipment			1.3. Select and set-up right irrigation system	

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
3.3.1 Setting up drip irrigation				
4. Pest control 4.1. IPM 4.2. Importance of control and prevention measures 4.3. Methods of preventing and controlling pests and diseases 4.4. List of pesticides and chemicals to be used 4.5. Crop protection 4.6. Safety measures in spraying chemicals 4.7. Calibration of sprayer 4.8. Plant pest and diseases			1.4. Determine control measures on specific pests and diseases	
5. Importance of Replanting			1.5. Perform replanting in missing hills	
6. Tools, Materials and Equipment needed in Harvesting 6.1. Different types of tools, materials and equipment 6.2. Parts and functions of specific equipments and tools to be used 6.3. Safety measures 6.4. Uses of different types of tools and equipment			LO 2. HARVESTING CROPS 2.1. Prepare all tools, materials and equipment needed	
7. Harvesting vegetables crops based on maturity indices 7.1. Harvesting time 7.2. Maturity indices methods 7.3. Factors to consider in determining matured vegetable crops			2.2. Determine when to harvest based on the maturity indices	
8. Harvesting vegetable crops 8.1. Time and methods of harvesting vegetable crops			2.3. Perform harvesting using appropriate materials, tools and equipment	

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
8.2. Techniques and importance of harvesting 8.3. Appropriate packing materials 8.4. Stages of maturity				

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GLOSSARY

Planting board	board with holes for dropping seeds into the soil at given distances or for marking distances when sowing or transplanting in the field or plots.
Drainage system	a system of watercourses or drains for carrying off excess water
Farm Tillage	general tilling of the soil
Harrow	a farm implement consisting of a heavy frame with sharp teeth or upright disks, used to break up and even off plowed ground.
Machine shed	a small hut, light shelter for machine
Mechanical drier	a machine for dehydrating by direct heat, drafts of hot air, centrifugal action
NPK	is used to label fertilizer based on the relative content of the chemical elements nitrogen(N), phosphorus (P), and potassium (K) that are commonly used in fertilizers. The N value is the percentage of elemental nitrogen by weight in the fertilizer. The values for P and K represent the amount of oxide in the form of P ₂ O ₅ and K ₂ O that would be present in the fertilizer if all the elemental phosphorus and potassium were oxidized into these forms.
Plow	farm implement consisting of a heavy blade at the end of a beam, usually hitched to a draft team or motor vehicle and used for breaking up soil and cutting furrows in preparation for sowing.
Pump house	a house where pumps (e.g. to irrigate) are installed and operated
Seedbed	a plot of land in which seeds or seedlings are grown before being transplanted; a bed of soil cultivated for planting seeds.
Seedplot	old-fashioned term for seedbed; a piece of ground in which seeds are sown to produce plants for transplanting; a piece of nursery-ground; hence, figuratively, a nursery or hotbed.
Soil analysis	is used to determine the level of nutrients found in a soil sample; is a comprehensive test that measures the level of nutrients in the soil. The analysis is used to assess the fertility of the soil and to determine ways to increase fertility levels.
Soil cultivation	is a practice which is designed to improve the condition of the soil prior to establishing crops or decorative plants. Cultivation is an important step in gardening or farming which can determine whether or not plants will thrive.

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GLOSSARY

Soil Sampling	judging the quality of soil by collecting representative samples from different spots within a particular field
Soil testing Kit (STK)	a kit that may be purchased for home testing of soil samples.
Solar radiation	is radiant energy emitted by the sun from a nuclear fusion reaction that creates electromagnetic energy. The spectrum of solar radiation is close to that of a black body with a temperature of about 5800 K.
Staking	a piece of wood or metal pointed at one end for driving into the ground as a marker, fence pole, or tent peg
Storage house	a place where things are stored
Tillage	is the agricultural preparation of soil by mechanical agitation of various types, such as digging, stirring, and overturning
Wildlife	wild animals and vegetation, especially animals living in a natural, undomesticated state.

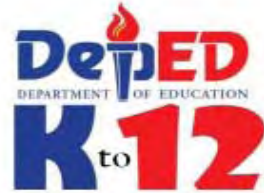
**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
AGRI - FISHERY – ARTS - HORTICULTURE**

CODE BOOK LEGEND

Sample: TLE_AFHC10PV-Ia-j-1

LEGEND		SAMPLE	
First Entry	Learning Area and Strand/ Subject or Specialization	Technology and Livelihood Education_Agri-Fishery Horticulture	TLE_AF HC 10
	Grade Level	Grade 10	
Uppercase Letter/s	Domain/Content/ Component/ Topic	Produce Vegetables	PV
			-
Roman Numeral <i>*Zero if no specific quarter</i>	Quarter	First Quarter	I
Lowercase Letter/s <i>*Put a hyphen (-) in between letters to indicate more than a specific week</i>	Week	Week One to Ten	a-j
			-
Arabic Number	Competency	Interpret the result of soil analysis	1

DOMAIN/ COMPONENT	CODE
Personal Entrepreneurial Skills	PECS
Environment and Marketing	EM
Use and Maintain Farm Tools and Equipment	UT
Perform Estimation and Basic Calculation	MC
Interpret Plans and Drawings	ID
Apply Safety Measures in Farm Operations	OS
Preparing Farm Tools, Implements and Simple Equipment for Horticultural Farm Operations	PT
Observing Safety Precautions in Horticultural Farm Operations	OH
Maintenance Activities of Farm Facilities	AF
Produce Vegetables	PV



Fish Processing

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
AGRI – FISHERY - ARTS – FOOD (FISH) PROCESSING
Grade 7/8 (Exploratory)**

Course Description:

This Module is an exploratory and introductory course which leads to **Food (Fish) Processing** National Certificate Level II (NC II). It covers **four** common competencies that a Grade 7/Grade 8 Technology and Livelihood Education (TLE) student ought to possess, namely: 1) using and maintaining tools, equipment and paraphernalia; 2) performing mensuration and calculation; 3) interpreting technical drawing and plans and; 4) applying food safety and sanitation.

The preliminaries of this exploratory course include the following: 1) discussion on the relevance of the course; 2) explanation of key concepts relative to the course and; 3) exploration on career opportunities.

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODING
Introduction				
1. Basic concepts in Food (Fish) Processing 2. Relevance of the course 3. Career opportunities	The learner demonstrates understanding of basic concepts, and underlying theories in Food (Fish) Processing.	The learner independently demonstrates common competencies in Food (Fish) Processing as prescribed in the TESDA Training Regulation.	1. Explain basic concepts in Food (Fish) Processing 2. Discuss the relevance of the course 3. Explore on opportunities for Food (Fish) Processing as a career	
Personal Entrepreneurial Competencies (PECS)				
1. Assessment of Personal Entrepreneurial Competencies and Skills (PECs) vis-à-vis a practicing entrepreneur/employee 1.1 Characteristics 1.2 Attributes 1.3 Lifestyle 1.4 Skills 1.5 Traits 2. Analysis of one's PECs	The learner demonstrates understanding of one's Personal Entrepreneurial Competencies and Skills (PECs).	The learner recognizes his/her Personal Entrepreneurial Competencies and Skills (PECs) and prepares a list of PECs of a practitioner/entrepreneur in Food Processing.	LO 1. Recognize Personal Entrepreneurial Competencies and Skills (PECs) needed in Food Processing 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 PECs with that of a practitioner /entrepreneur	TLE_PECs7/8-00-1
Environment and Marketing (EM)				
1. Key concepts of Environment and Market 2. Products & services available in the market 3. Differentiation of products and services 4. Customers and their buying habits 5. Competition in the market 6. SWOT Analysis	The learner demonstrates understanding of environment and market that relates with a career choice in Food Processing.	The learner independently generates a business idea based on the analysis of environment and market in Food Processing.	LO 1. Generate a business idea that relates with a career choice in Food Processing 1.1. Conduct SWOT analysis 1.2. Identify the different products/services available in the market 1.3. Compare different products/services in computer hardware servicing business 1.4. Determine the profile potential	TLE_EM7/8E M-00-1

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODING
			customers 1.5. Determine the profile potential competitors 1.6. Generate potential business idea based on the SWOT analysis	
LESSON 1: USE AND MAINTAIN FOOD PROCESSING TOOLS, EQUIPMENT AND UTENSILS (UT)				
1. Food (fish) processing tools, equipment and instruments 2. Faults and defects of tools, equipment and instruments in food (fish) processing 3. Reporting defective tools, equipment and utensils	The learner demonstrates understanding of uses and maintenance of food (fish) processing tools, equipment, instruments and utensils in food (fish) processing.	The learner uses and maintain appropriate food (fish) processing tools, equipment, instruments and utensils and reports accordingly upon discovery of defect/s.	LO 1. Select tools, equipment, utensils and instruments 1.1. Select tools, equipment, utensils and instruments according to food (fish) processing method 1.2. Explain the defects in tools, equipment, utensils and instrument 1.3. Follow procedures in reporting defective tools, equipment, utensils and instruments	TLE_AFFP7/8 UT- 0a-1
4. Standard measuring devices and instruments 5. Sanitizing tools, equipment, instruments, and utensils 6. Calibration of measuring devices and instruments 7. Selection of food (fish) processing tools, equipment, instruments and utensils			LO 2. Use tools, equipment, instruments and utensils by following the standard procedures 2.1. Interpret a food processing procedure 2.2. Apply standard procedures in using tools, equipment, instruments, and utensils 2.3. Calibrate tools, equipment instruments and utensils 2.4. Follow procedures in sanitizing tools, equipment, instruments and utensils 2.5. Use tools, equipment, instruments, and utensils according to job requirements and manufacture's specification	TLE_AFFP7/8 UT-0b-2
8. Storing tools, equipment, instruments and utensils 9. Minor preventive machine maintenance 10. Disposal of defective tools, equipment, instruments and utensils			LO 3. Perform post-operation activities 3.1. Apply procedures in switching off/plugging off food (fish) processing tools, equipment, instruments and utensils 3.2. Follow steps in cleaning and sanitizing tools, equipment, instruments and tools before storing	TLE_AFFP7/8 UT-0c-3

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODING
			3.3. Perform minor preventive machine maintenance 3.4. Explain the proper disposal of defective tools, equipment, instruments and utensils	
LESSON 2: PERFORM ESTIMATION AND BASIC CALCULATION (MC)				
1. Weights and measurements 1.1 Gravimetric 1.2 Volumetric 1.3 Lengths, diameter, widths 1.4 Seam measurements 2. Hotness/coldness temperature	The learner demonstrates understanding of basic measurements and calculation.	The learner performs basic measurements and calculation that relate with weight and measurements.	LO 1. Tabulate the recorded data relevant to production of processed food 1.1. Record weights and measurements of raw materials and ingredients 1.2. Summarize/sum up recorded weights and measurements of processed products 1.3. Perform how a seam is measured	TLE_AFFP7/8 MC-0d-1
3. Basic mathematical skills in computing 3.1. Ingredients formulation 3.2. Percentage formulation 3.3. Conversions: ratios and proportions	The learner demonstrates understanding of basic mathematical skills that relate with estimation and basic calculation.	The learner performs basic mathematical skills that relate with weight and measurements.	LO 2. Review various formulations 2.1. Check raw materials, ingredients and percentage formulations according to approved specifications and enterprise requirements 2.2. Re-check percentage formulations of finished products according to approved specifications and enterprise requirements	TLE_AFFP7/8 MC-0d-2
4. Spoilage and rejects 5. Recoveries and yields	The learner demonstrates understanding of basic mathematical skills that relate with spoilage, rejects and the percentage of recovery of yields.	The learner exhibits basic mathematical skills that relate with computation of percentage of spoilage, rejects and recovery of yields.	LO 3. Calculate the production inputs and output 3.1. Compute for the percentage equivalents of actual spoilage and rejects 3.2. Calculate the percentage of actual yields and recoveries according to enterprise requirements 3.3. Record calculated data according to enterprise requirements	TLE_AFFP7/8 MC-0e-3
6. Basic mathematical computation of production costs 6.1. Ingredients formulations 6.2. Percentage formulations 6.3. Conversions	The learner demonstrates understanding of basic computation of production costs and simple record keeping.	The learner computes for production costs and performs simple record keeping.	LO 4. Compute for the costs of production 4.1. Follow the standard procedures in computing for production costs 4.2. Validate the computed costs of	TLE_AFFP7/8 MC-0e-4

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODING
6.4. Ratios and proportion 6.5. Spoilage and rejects 6.6. Percentage of recoveries and rejects 6.7. Simple record keeping			production according to enterprise production requirements	
LESSON 3: INTERPRET PLANS AND DRAWINGS (ID)				
1. Fish processing activities 2. Layout of fish processing area 3. Signs and symbols in layout plan	The learner demonstrates understanding of interpreting plans and drawings that relate with basic fish processing activities.	The learner interprets plans and drawings that relate with basic fish processing activities.	LO 1. Interpret a layout plan 1.1. Explain the meanings of signs and symbol used in lay outing plan for fish processing activity 1.2. Interpret layout plan for fish processing area according to standard set	TLE_AFFP7/8 ID-0f-1
4. Packaging fish products 5. Designing packaging materials 6. Labels and symbols used in packaging	The learner demonstrates understanding of basic principles of design, labels and symbols used in packaging fish products.	The learner creates an acceptable packaging for fish products.	LO 2. Perform outer packaging procedures 2.1. Design packaging materials for fish products 2.2. Label packaged fish products according to quality control standards	TLE_AFFP7/8 ID-0f-2
LESSON 4: APPLY FOOD SAFETY AND SANITATION (OS)				
1. GMP requirements on personal hygiene 2. Personal protective equipment 3. Workplace health and safety requirements 4. Good grooming 5. Sanitizing PPE	The learner demonstrates understanding of basic principles and rules to be observed to ensure food safety and sanitation when he/she packages fish products.	The learner observes basic principles and rules to be observed to ensure food safety and sanitation when he/she packages fish products.	LO 1. Observe personal hygiene and good grooming 1.1. Explain the importance of good grooming in a workplace 1.2. Follow the procedures in cleaning, checking and sanitizing personal protective equipment	TLE_AFFP7/8 OS-0g-1
6. Safety measures and practices 7. First aid 8. Practices in manufacturing good food 9. TOM 10. Codes and regulations			LO 2. Implement food safety practices 2.1. Discuss the sanitary practices in food safety 2.2. Explain the importance of cleanliness and sanitation in a workplace 2.3. Observe practices in manufacturing good food 2.4. Perform first aid according to workplace standard and operating procedures	TLE_AFFP7/8 OS-0g-2
11. HACCP 12. Waste disposal			LO 3. Conduct work in accordance with environmental policies and procedures	TLE_AFFP7/8 OS-0h-3

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODING
13. Environmental protection 14. Monitoring practices 15. Record keeping procedures			3.1. Explain the importance of implementing the HACCP plan 3.2. Discuss how a sound monitoring practices is done 3.3. Develop a plan to document and monitor corrective actions on environmental protection	
16. Environmental hazards 17. Prevention and control of environmental risks 18. Disaster preparedness and identification 19. Risk assessment and control options 20. Identifying and responding to hazards 21. Investigating incidents 22. Management and utilization of environmental resources 23. Practices on resource utilization and wastage 24. Handling hazardous waste 25. Rehabilitation procedures			LO 4. Participate in improving environmental practices at work 4.1. Explain environmental hazards 4.2. Discuss how environmental risks, hazards and incidents can be prevented and controlled 4.3. Plan ways in managing and utilizing resources in the environment 4.4. Suggest ways to avoid wastage 4.5. Observe rehabilitation procedures	TLE_AFFP7/8 OS-0i-j-4

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
AGRI-FISHERY ARTS - FOOD (FISH) PROCESSING
Grade 9 (Specialization)**

Course Description:

This a course which leads to the specialization on **Food (Fish) Processing** National Certificate (NC 1), it covers (4) four of the (7) seven core competencies that a Grade 9 Technology and Livelihood Education (TLE) student ought to poses, namely: 1) implement sampling procedure; 2) inspect and sort materials and products; 3) dispense non-bulk ingredients; and 4) prepare raw and packaging materials and supplies for processing;

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<p>Introduction</p> <ol style="list-style-type: none"> Basic concepts in Food (Fish) Processing Relevance of the course Career opportunities 	The learner demonstrates understanding of basic concepts and underlying theories in food (fish) processing.	The learners independently develop the skills in food processing and demonstrate the core competencies in food processing prescribed in TESDA Training Regulation.	<ol style="list-style-type: none"> Explain basic concepts food (fish) processing Discuss the relevance of the course Explain on opportunities for food (fish) processing as a career 	
Personal Entrepreneurial Competencies (PECS)				
<ol style="list-style-type: none"> Assessment of Personal Competencies and Skills (PECs) vis-à-vis a practicing entrepreneur/ employee in locality/town. <ol style="list-style-type: none"> Characteristics Attributes Lifestyle Skills Traits Analysis of PECs in relation to a practitioner Align, strengthen and develop ones PECs based on the results 	The learner demonstrates understanding of one's Personal Competencies and Skills (PECs) in Food Processing	The learner recognizes his/her Personal Entrepreneurial Competencies and Skills (PECSS) and prepares an activity plan that aligns with that of a practitioner/entrepreneur in Food Processing	<p>LO 1. Recognize Personal Entrepreneurial Competencies and Skills (PECSS) needed in Food Processing</p> <ol style="list-style-type: none"> Assess one's PECSS: characteristics, attributes, lifestyle, skills, traits Assess practitioner's: characteristics, attributes, lifestyle, skills, traits Compare one's PECSS with that of a practitioner /entrepreneur Align one's PECSS with that of a practitioner/entrepreneur 	TLE_PEC9-00-1
Environment and Marketing (EM)				
<p>Market (Town)</p> <ol style="list-style-type: none"> Key concepts of Market Players in the Market (Competitors) Products & services available in the market 	The learner demonstrates understanding of environment and market in Food Processing in one's town/municipality.	The learner independently creates a business vicinity map reflective of potential Food Processing market within the locality/town.	<p>LO 1. Recognize and understand the market in Food Processing</p> <ol style="list-style-type: none"> Identify the players/ competitors within the town Identify the different products/services available in the market 	TLE_EM9-00-1
<p>Market (Customer)</p> <ol style="list-style-type: none"> Key concepts of Identifying and Understanding the Consumer 			<p>LO 2. Recognize the potential customer/market in Food Processing</p> <ol style="list-style-type: none"> Identify the profile of potential 	TLE_EM9-00-2

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
5. Consumer Analysis through: 5.1. Observation 5.2. Interviews 5.3. FGD 5.4. Survey			customers 2.2. Identify the customer's needs and wants through consumer analysis 2.3. Conduct consumer/market analysis	
6. Generating Business Idea 6.1. Key concepts of Generating Business Ideas 6.2. Knowledge & Skills, Passions, Interests 6.3. new application 6.4. Irritants 6.5. Striking ideas (new concept) 7. Serendipity Walk			LO 3. Create new business ideas in Food Processing business by using various techniques 3.1. Explore ways of generating business idea from ones' own characteristics/attributes 3.2. Generate business ideas using product innovation from irritants, trends and emerging needs 3.3. Generate business ideas using Serendipity Walk	TLE_EM9-00-3
LESSON 1: IMPLEMENT SAMPLING PROCEDURES (SA) <i>(Note: Research components should be included in all activities)</i>				
1. Sampling requirements 2. Types of samples 3. Sampling plan 4. Basic sampling principles, with emphasis on sampling which is random and representative of the lot 5. Sampling techniques 6. Basic characteristics of samples to be handled 7. Preparation of requirements for samples 8. Awareness of Codes or Regulations such as HACCP and GMP 9. Preparing sampling tools and equipment 10. Using PPE	The learner demonstrates understanding on implementing or employing sampling procedures.	The learner demonstrates independently the given procedures of implementing or employing sampling procedures.	LO 1. Prepare for sampling 1.1. Identify sampling requirements in accordance with sampling plan 1.2. Prepare sampling equipment container and labels according to sampling requirements	TLE_AFFP9S A-Ia-c-1
11. Applying basic sampling principles, with emphasis on sampling which is random and representative of the lot 12. Sampling plan, procedures and techniques 13. Collecting, handling and preparing samples 14. Using sampling materials, tools and			LO 2. Collect samples 2.1. Collect and transfer samples under controlled condition 2.2. Handle samples to preserve them and the source integrity according to sampling requirement and OHS requirements 2.3. Identify and report defects or	TLE_AFFP9S A-Id-j-2

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
equipment 15. Recording sample information 16. Sample information 17. Basic characteristics of samples to be handled 18. Following work procedures 19. Reporting defected samples 20. Handling, preservation and storage requirements for samples 21. Maintaining clean and safe workplace 22. Practicing 5S and 3Rs principles 23. Awareness of Codes or Regulations such as HACCP and GMP 24. Using PPE			abnormalities in source material and/or sample according to workplace requirements 2.4. Record sample information according to workplace procedures 2.5. Clean and maintain the workplace according to workplace standards	
LESSON 2: INSPECT AND SORT RAW MATERIALS AND PRODUCT (IS) <i>(Note: Research components should be included in all activities)</i>				
1. Preparation of tools for inspection and sorting 2. Checking, cleaning and sanitation of equipment and tools. 3. Preparation of office materials/supplies and equipment. 4. Cleaning and sanitation procedures 5. Food safety principles and practices 6. Awareness of Codes or Regulations such as Hazard Analysis Critical Control Point (HACCP) and Good Manufacturing Practice (GMP)	The learner demonstrates understanding inspecting and sorting raw materials and product to be used.	The learner demonstrates independently the given procedures on inspecting and sorting raw materials to be used.	LO 1. Prepare equipment and tools 1.1. Prepare equipment and tools for inspection and sorting in accordance with manufacturer's specifications and workplace requirements 1.2. Check, clean and sanitize equipment and tools are in accordance with manufacturer's specifications and workplace requirements 1.3. Prepare office equipment and materials/supplies needed in accordance with approved specifications	TLE_AFFP9I S-IIa-c-1
7. Types of raw materials and product 8. Procedures and techniques inspection and sorting of raw materials or products 9. Operating equipment 10. Grading of raw materials or products 11. Defects of raw materials 12. Defects of semi-processed/finished products 13. Physical properties for sorting food 14. OHS requirements 15. Manufacturer's requirements			LO 2. Inspect and sort the materials and product 2.1. Receive and handle raw materials and product according to standard operating procedures 2.2. Conduct inspection and sorting according to required specifications, OHS requirements and workplace procedures 2.3. Undertake grading undertaken, as necessary, according to raw material	TLE_AFFP9I S-IIId-h-2

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
16. Workplace requirements 17. Record and report making			or product requirements 2.4. Inspect raw materials and products for visible signs of defects according to set processing and purchasing specifications 2.5. Sort raw materials and products in accordance with physical property specifications 2.6. Weigh and keep inspected and sorted raw materials and products a in accordance with standard operating procedures 2.7. Report rejected/sub-standard raw materials and products are to appropriate person and/or disposed according to organizational guidelines	
18. Cleaning and storing equipment and tools after use 19. 5S principle 20. Proper waste disposal 21. Recycling/by-product utilization (3Rs principles) 22. Environmental protection and concerns 23. OHS requirements 24. Manufacturer’s requirements 25. Workplace requirements 26. Completing record and report			LO 3. Complete inspection and sorting activity 3.1. Clean and keep equipment and tools according to manufacturers’ specifications and workplace procedures 3.2. Complete and report records according to workplace procedures	TLE_AFFP9I S-III-j-3
LESSON 3: DISPENSE NON-BULK INGREDIENTS (NB) <i>(Note: Research components should be included in all activities)</i>				
1. Preparing materials and equipment for dispensing 2. Inspection of materials (Non-bulk ingredients / additives) 3. Types of non-bulk ingredients / additives 4. Workplace requirements 5. Contamination and food safety issues related to dispensing 6. Selection of appropriate measuring/dispensing equipment) 7. Purpose and basic principles of the	The learner demonstrates understanding on dispensing non-bulk ingredients.	The learner demonstrates independently the given method of dispensing non-bulk ingredients.	LO 1. Prepare to dispense ingredients 1.1. Inspect materials to confirm type, quality clearance, quantities and identify any obvious contamination or non-conformance with workplace requirements 1.2. Select appropriate measuring/dispensing and weighing equipment according to dispensing requirements 1.3. Confirm availability of containers/bags	TLE_AFFP9 NB-IIIa-e-1

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
dispensing process 8. Quality characteristics and related handling requirements of materials 9. Ensuring availability of containers/bags and labels 10. Pre-start checks 11. Manufacturer's specifications 12. Personal protective equipment (PPE) 13. OHS requirements			and labels according to dispensing requirements 1.4. Carry out pre-start checks according to manufacturer's specifications and workplace procedures 1.5. Use appropriate personal protective equipment (PPE) according to workplace procedures and occupational health and safety (OHS) requirements	
14. Measuring and/or weighing ingredients 15. Dispensing ingredients 16. Purpose and basic principles of the dispensing process 17. Monitoring measuring/dispensing equipment 18. Operating and maintaining the measuring/ dispensing equipment 19. Following work procedures 20. Corrective action implementation 21. Basic operating principles of equipment 22. Typical equipment malfunctions and related causes 23. Contamination and food safety issues related to dispensing 24. Quality characteristics and related handling requirements of materials 25. Maintaining of workplace 26. Workplace requirements (housekeeping standards, 5S Principles, etc.) 27. Manufacturer's specifications 28. OHS hazards and controls 29. Using appropriate Personal protective equipment (PPE)			LO 2. Measure and/or weigh ingredients 2.1. Weigh /measure non-bulk ingredients and additives according to production requirements 2.2. Label dispensed ingredients according to workplace procedures 2.3. Monitor accurate of measuring/dispensing equipment to identify variation in operating conditions according to production requirements 2.4. Report identify variation in equipment operation maintenance requirements according to workplace reporting requirements 2.5. Maintain workplace according to housekeeping standards	TLE_AFFP9 NB -IIIIf-j-2
30. Cleaning and sanitizing of dispensing equipment 31. Maintaining and storage of dispensing equipment 32. Identifying and reporting unacceptable equipment/utensils			LO 3. Complete the dispensing process 3.1. Clean dispensing equipment according to manufacturer's specifications and workplace procedures 3.2. Identify maintenance requirements and unacceptable equipment/utensil	TLE_AFFP9 NB -IVa-b-3

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
33. Following work procedures 34. Completing records and reports			conditions according to workplace procedures 3.3. Report on the unacceptable equipment/utensil according to workplace procedures 3.4. Records are completed according to workplace procedures	
LESSON 4: PREPARE RAW AND PACKAGING MATERIALS AND SUPPLIES FOR PROCESSING (PR) <i>(Note: Research components should be included in all activities)</i>				
1. Types raw materials and processing supplies 2. Types of packaging materials 3. Required specification 4. Selecting raw materials 5. Confirming raw/packaging materials and supplies and their availability 6. Receiving and handling raw/packaging materials and supplies 7. Placing in the receiving the raw/packaging materials and supplies 8. Production requirements 9. OHS requirements	The learner demonstrates understanding of preparing raw and packaging materials for food processing.	The learner demonstrates independently the given procedures in preparing raw and packaging materials for food processing.	LO 1. Select raw and packaging materials and supplies for processing. 1.1. Confirm raw and packaging materials and supplies for food processing and their availability according to production requirements 1.2. Receive and handle raw and packaging materials and supplies for food processing according to workplace and OHS requirements 1.3. Place raw and packaging materials and supplies for food processing in the receiving bin according to required specifications	TLE_AFFP9P R-IVc-f-1
10. Principles and procedures for preparing raw materials 11. Proper handling of raw and packaging materials and supplies 12. Identification and proper use of cleaning/washing equipment, implements and utilities 13. Proper cleaning and/or washing procedure 14. Food safety principles and practices 15. Recording and reporting procedures 16. 5S principle 17. Proper waste disposal (3Rs principle) 18. Environmental protection and concerns 19. Awareness of Codes or Regulations such as HACCP and GMP 20. OHS requirements			LO 2. Prepare raw and packaging materials and supplies 2.1. Wash or clean materials according to required specifications. 2.2. Prepare raw and packaging materials and supplies according to specifications 2.3. Complete records according to workplace requirements	TLE_AFFP9P R-IVg-j-2

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
21. Using PPE				

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
AGRI-FISHERY ARTS - FOOD (FISH) PROCESSING
Grade 10 (Specialization)**

Prerequisite: Grade 9 Fish Processing

Course Description:

This a course which leads to the specialization on **Food (Fish) Processing** National Certificate (NC I), it covers the remaining (3) three of the (7) seven core competencies that a Grade 10 Technology and Livelihood Education (TLE) student ought to poses, namely: 1) operate basic equipment; 2) clean and sanitize equipment for processing packaging area; and 3) load and unload raw materials, product and supplies.

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
Introduction				
<ol style="list-style-type: none"> 1. Basic concepts in Food (Fish) Processing 2. Relevance of the course 3. Career opportunities 	The learner demonstrates understanding of basic concepts and underlying theories in food (fish) processing.	The learners independently develop the skills in food processing and demonstrate the core competencies in food processing prescribed in TESDA Training Regulation.	<ol style="list-style-type: none"> 1. Explain basic concepts food (fish) processing 2. Discuss the relevance of the course 3. Explain on opportunities for food (fish) processing as a career 	
Personal Entrepreneurial Competencies (PECS)				
<ol style="list-style-type: none"> 1. Assessment of Personal Competencies and Skills (PECs) vis-à-vis 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 PECs in relation to a practitioner 3. Strengthening and further development of ones PECs 	The learner demonstrates understanding of one's Personal Competencies and Skills (PECs) in Food Processing.	The learner independently creates a plan of action that strengthens/ further develops one's PECs in Food Processing.	LO 1. Develop and strengthen personal competencies and skills (PECs) needed Food Processing <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_PECs10-00-1
Environment and Marketing (EM)				
<ol style="list-style-type: none"> 1. Product Development 2. Key concepts of 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 understanding of environment and market in Food Processing in one's town/municipality.	The learner independently creates a business vicinity map reflective of potential Food Processing market within the locality/town.	LO 1. Develop a product/service in Food Processing <ol style="list-style-type: none"> 1.1. Identify what is of "Value" to the customer 1.2. Identify the customer to sell to 1.3. Explain what makes a product unique and competitive 1.4. Apply creativity and Innovative techniques to develop marketable product 	TLE_EM10-III0-1

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			1.5. Employ a Unique Selling Proposition (USP) to the product/service	
5. Selecting Business Idea 6. Key concepts of Selecting a: 6.1. Business Idea 6.2. Criteria 6.3. Techniques			LO 2. Select a business idea based on the criteria and techniques set 2.1. Enumerate various criteria and steps in selecting a business idea 2.2. Apply the criteria/steps in selecting a viable business idea 2.3. Determine a business idea based on the criteria/techniques set	TLE_EM10-III0-2
7. Branding			LO 3. Develop a brand for the product 3.1. Identify the benefits of having a good brand 3.2. Enumerate recognizable brands in the town/province 3.3. Enumerate the criteria for developing a brand 3.4. Generate a clear appealing product brand	TLE_EM10-IV0-3
LESSON 5: OPERATE EQUIPMENT (OE) <i>(Note: Research components should be included in all activities)</i>				
1. Types, characteristics and functions of basic equipment 2. Selection and preparation of equipment for use 3. Pre-operational checks and procedures 4. Identifying and reporting faulty and damaged machine/equipment 5. Identifying required training for equipment operation 6. Notifying and reporting appropriate persons 7. Apply safe workplace practices and procedures 8. Using personal protective equipment (PPE) 9. OHS requirements	The learner demonstrates understanding in operating appropriate equipment for food (fish) processing.	The learner demonstrates independently the given procedures in basic operation of equipment needed in food (fish) processing including recognition of functional and quality equipment and its maintenance following specific procedures and instructions.	LO 1. Select and prepare equipment for use 1.1. Identify and access basic machine/equipment required to complete tasks in accordance with assignment instructions and workplace requirements 1.2. Carry out routine pre-operational checks according to manufacturers' specifications and workplace procedures 1.3. Identify and report faulty and damaged machine/equipment according to workplace procedures 1.4. Identify and notify appropriate person(s) on any training required to operate machine/ equipment according to supplier and workplace requirements	TLE_AFFP10 OE-Ia-e-1

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
10. Use of appropriate PPE 11. Practicing OHS 12. Following manufacturer’s specification 13. Operating machine/equipment 14. Identifying and reporting out-of-specification product, process and equipment performance. 15. Workplace procedures			LO 2. Operate equipment 2.1. Select, use and maintain suitable personal protective equipment in accordance with occupational health and safety (OHS) requirements, and manufacturers’ specifications 2.2. Operate machine/equipment in a safe and controlled manner in accordance with OHS requirements and manufacturers’ specifications 2.3. Identify and report out-of-specification product, process and equipment performance according to workplace procedures	TLE_AFFP10 OE-If-j-IIa-e-2
16. Shutting-down machine/equipment 17. Locate emergency stop functions on equipment 18. Routine maintenance procedures 19. Cleaning and sanitation procedures for work area and equipment 20. Security and storage of equipment and materials 21. Lock out and tag out procedures 22. Safe workplace procedures 23. Emergency procedures 24. Reporting faulty or damaged machine/equipment 25. Manage wastes (reduce, reuse and recycle 3Rs) 26. Reporting and documentation requirements and processes 27. Relevant legislative provisions including OHS requirements 28. Awareness of Codes or Regulations such as HACCP and GMP 29. Apply safe workplace practices and procedures 30. Use of appropriate PPE			LO 3. Maintain equipment and resources 3.1. Shut down machine/equipment according to workplace procedures and manufacturers’ specifications 3.2. Clean and maintain work area in accordance with workplace requirements 3.3. Clean, maintain and store tools and machine/ equipment in accordance with workplace requirements and manufacturers’ specifications 3.4. Report faulty or damaged machine/equipment for repair or replacement in accordance with workplace procedures 3.5. Manage wastes generated according to workplace procedures and 3R principle 3.6. Complete and maintain records and reports in accordance with industry, legislative and workplace requirements	TLE_AFFP10 OE-IIf-j-3

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
LESSON 6: CLEAN AND SANITIZE EQUIPMENT AND PROCESSING/PACKAGING AREA (CS) <i>(Note: Research components should be included in all activities)</i>				
<ol style="list-style-type: none"> 1. Preparing for cleaning equipment and processing/packaging area 2. Preparing supplies, materials and utilities for cleaning and sanitation 3. Purpose and basic principles of cleaning and sanitation 4. Consequences of contamination of process flows by cleaning solutions and related safeguards 5. Cleaning and sanitation requirements for equipment and processing/packaging area 6. Methods used to render equipment and processing/packaging area safe to clean and sanitize 7. Characteristics and functions of cleaning and sanitizing chemicals, including proper handling, use and storage 8. Purpose and limitations of protective clothing and equipment 9. Practicing OHS 10. Regulatory/ Legislative requirements 11. Using PPE 	<p>The learner demonstrates understanding of cleaning and sanitizing the equipment and work areas which include the food processing and packaging areas</p>	<p>The learner independently demonstrates the given procedures in cleaning and sanitizing the food processing equipment and packaging areas.</p>	<p>LO 1. Prepare for cleaning</p> <ol style="list-style-type: none"> 1.1. Identify cleaning/ sanitizing supplies and materials, and utilities 1.2. Confirm availability of cleaning/sanitizing supplies and materials, and utilities according to cleaning and sanitizing requirements 1.3. Prepare mixture of sanitizing solutions, as necessary, according to workplace requirements and application 1.4. Clear equipment and processing/packaging area in preparation for cleaning according to workplace requirements and manufacturer's specifications. 1.5. Render safe to clean the processing/packaging area according to workplace procedures and manufacturer's specifications 	<p>TLE_AFFP10 CS-IIIa-e-1</p>
<ol style="list-style-type: none"> 12. Cleaning and sanitizing equipment and processing/packaging area 13. Inspecting equipment and processing/packaging area 14. Identifying and reporting unacceptable equipment and processing/packaging area 15. Storing cleaning equipment and chemicals 16. Proper disposal of waste from cleaning process 17. Restoring equipment and processing/packaging area to operating order 18. Completing records 			<p>LO 2. Clean and sanitize equipment and processing / packaging area to meet workplace requirements.</p> <ol style="list-style-type: none"> 2.1. Clean and sanitize equipment and processing/packaging area according to workplace procedures, OHS requirements, and manufacturer's specifications 2.2. Inspect equipment and processing/packaging area according to required operating conditions and cleanliness 2.3. Identify and report unacceptable equipment and processing/ packaging area conditions according to workplace 	<p>TLE_AFFP10 CS-IIIj-j-2</p>

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
19. Regulatory/legislative requirements 20. Workplace requirements 21. OHS requirements 22. Manufacturer’s specifications			procedures 2.4. Store cleaning equipment and chemicals according to workplace procedure 2.5. Dispose waste from cleaning process according to workplace and OHS requirements, and regulatory/legislative requirements 2.6. Restore equipment and processing/packaging area to operating order according to workplace procedures 2.7. Complete records in line with workplace requirements	
LESSON 7: LOAD AND UNLOAD RAW MATERIALS, PRODUCTS AND SUPPLIES (LD) <i>(Note: Research components should be included in all activities)</i>				
1. Selection of loading and unloading procedures 2. Basic principles and procedures for loading and unloading 3. Identifying dangerous or hazardous raw materials, products and/or supplies 4. Identifying raw materials, products and/or supplies requiring special handling and/or documentation 5. Packing and unpacking raw materials, products and/or supplies 6. Loading raw materials, products and/or supplies 7. Selection and using of lifting aids and appliances 8. Unloading activities 9. Identifying and controlling hazards and risks 10. Material loading regulations 11. Workplace procedures 12. OHS requirements 13. Regulatory and legislative requirements	The learner demonstrates understanding of proper procedure in loading and unloading of raw materials, products and supplies in food (fish) processing.	The learner demonstrates independently the given procedures in loading and unloading raw materials, products and supplies in food (fish) processing in accordance with workplace requirement.	LO 1. Load and unload raw materials, products and supplies. 1.1. Select loading and unloading procedures according to workplace and OHS requirements 1.2. Identify and handle dangerous or hazardous raw materials, products and/or supplies in accordance with OHS, regulatory and legislative requirements 1.3. Identify raw materials, products and/or supplies requiring special handling. 1.4. Follow special handling procedures according to workplace requirements 1.5. Pack and unpack raw materials, products and/or supplies according to workplace requirements 1.6. Load raw materials, products and/or supplies in accordance with relevant material loading regulations and workplace procedures 1.7. Select and use lifting aids and appliances according to loading procedures in compliance with workplace requirements and legislation	TLE_AFFP10 LD-IVa-e-1

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			1.8. Conduct unloading activities safely and efficiently according to workplace requirements 1.9. Identify and control hazards and risks according to OHS and workplace requirements. 1.10. Implement controls according to OHS and workplace requirements.	
14. Proper distribution of load 15. Methods of securing and protecting load 16. Warehouse plan/Site layout and obstacles 17. Workplace operating procedures 18. Hazard and risk identification and control 19. Material loading regulations 20. Workplace procedures 21. OHS requirements 22. Regulatory and legislative requirements 23. PPE protective/safety gadgets 24. Awareness of Codes or regulations such as HACCP and GMP			LO 2. Secure and protect load 2.1. Check load distribution to ensure that it is even, legal and within the working capacity according to workplace procedures 2.2. Check load to ensure that dangerous goods and hazardous substances are appropriately segregated in accordance with regulatory and workplace requirements 2.3. Secure load using the correct load restraint and protection equipment, carrying and garage conditions according to workplace and OHS requirements 2.4. Protect the load in accordance with legal and workplace safety requirements	TLE_AFFP10 LD-IVf-h-2
25. Selection and checking of raw materials, products and/or supplies inclusive of travel documents and permits 26. Completing relevant records 27. Legislative requirements 28. Workplace requirements			LO 3. Complete documentation 3.1. Select and check raw materials, products and/or supplies for ability to travel in accordance with relevant regulations/permit requirements 3.2. Complete all required records in accordance with legislative and workplace requirements	TLE_AFFP10 LD-IVi-j-3

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
AGRI-FISHERY ARTS – FOOD (FISH) PROCESSING**

CODE BOOK LEGEND

Sample: TLE_AFFP10LD-IVf-h-2

LEGEND		SAMPLE		DOMAIN/ COMPONENT	CODE
First Entry	Learning Area and Strand/ Subject or Specialization	Technology and Livelihood Education Agri-Fishery Food (Fish) Processing	TLE_AF FP 10	Personal Entrepreneurial Skills	PECS
	Grade Level	Grade10		Environment and Marketing	EM
Uppercase Letter/s	Domain/Content/ Component/ Topic	Load and unload raw materials, products and supplies	LD	Use and Maintain Farm Processing Tools, Equipment and Utensils	UT
				-	Perform Estimation and Basic Calculation
Roman Numeral <i>*Zero if no specific quarter</i>	Quarter	Fourth Quarter	IV	Interpret Plans and Drawings	ID
Lowercase Letter/s <i>*Put a hyphen (-) in between letters to indicate more than a specific week</i>	Week	Week six to eight	f-h	Apply Food Safety and Sanitation	OS
			-	Implement Sampling Procedures	SA
Arabic Number	Competency	Secure and protect load	2	Inspect and Sort Raw Materials and Product	IS
				-	Dispense Non-bulk Ingredients
				Prepare Raw and Packaging Materials and Supplies for Processing	PR
				Operate Equipment	OE
				Clean and Sanitize Equipment and Processing/Packaging Area	CS
				Load and Unload Raw Materials, Products and Supplies	LD



Industrial Arts

- Automotive Servicing
- Carpentry
- Consumer Electronics Servicing
- Electrical Installation and Maintenance
- Plumbing
- Refrigeration and Airconditioning
- Shielded Metal Arc Welding
- Masonry

INDUSTRIAL ARTS CURRICULUM MAP

No.	Grade 7/8	Grade 9	Grade 10	Grade 11	Grade 12
1	EXPLORATORY COVERING COMMON COMPETENCIES	*Automotive Servicing (NC I)			
2		*Carpentry (NC II)			
3		*Consumer Electronics Servicing (NC II)			
4		*Electrical Installation & Maintenance (NC II)			
5		**Plumbing (NC I)		**Plumbing (NC II)	
6					
7		*Refrigeration & Airconditioning (NC II)			
8		**Shielded Metal Arc Welding (NC I)		**Shielded Metal Arc Welding (NC II)	
9					
10		**Masonry (NC II)		**Tile Setting (NC II)	
11					

* Students must complete four years to take the NC Exam.

** Students must complete two years to take the NC Exam.



Automotive Servicing

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INDUSTRIAL ARTS – AUTOMOTIVE SERVICING
Grade 7/Grade 8 (Exploratory)**

Course Description:

This is an exploratory and introductory course which leads to **Automotive Servicing** National Certificate Level I (NCI). It covers four common competencies that the **Grade 7/Grade 8** Technology and Livelihood Education (**TLE**) student ought to possess: (1) using tools, equipment and paraphernalia; 2) performing mensuration and calculation; 3) practicing Occupational Health and Safety (OHS) procedures and; 4) interpreting technical drawing and plans.

The preliminaries of this exploratory course include the following: (1) relevance of the course, (2) key concepts relative to the course, and (3) exploration of career opportunities.

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<p>Introduction</p> <ol style="list-style-type: none"> 1. Basic concepts in Automotive Servicing 2. Relevance of the course 3. Career opportunities 	<p>The learner demonstrates an understanding of basic concepts and underlying theories in automotive servicing.</p>	<p>The learner independently demonstrates a common competencies in automotive servicing as prescribed by TESDA Training Regulations.</p>	<ol style="list-style-type: none"> 1. Explain basic concepts in automotive servicing. 2. Discuss the relevance of the course. 3. Explore career opportunities in automotive servicing. 	
PERSONAL ENTREPRENEURIAL COMPETENCIES (PECS)				
<ol style="list-style-type: none"> 1. Assessment of Personal Entrepreneurial Competencies and Skills (PeCS) vis-à-vis PeCS of a practicing entrepreneur/employee <ol style="list-style-type: none"> 1.1 Characteristics 1.2 Attributes 1.3 Lifestyle 1.4 Skills 1.5 Traits 2. Analysis of one's PeCS 	<p>The learner demonstrates an understanding of one's Personal Entrepreneurial Competencies and Skills (PeCS).</p>	<p>The learner recognizes his/her Personal Entrepreneurial Competencies and Skills (PeCS) and prepares a list of PeCS of a practitioner/entrepreneur in automotive servicing.</p>	<p>LO 1. Recognize Personal Entrepreneurial Competencies and Skills (PeCS) needed in automotive servicing</p> <ol style="list-style-type: none"> 1.1 Assess one's PeCS: characteristics, attributes, lifestyle, skills, traits 1.2 Assess practitioner's PeCS: characteristics, attributes, lifestyle, skills, traits 1.3 Compare one's PeCS with those of a practitioner/entrepreneur 	TLE_PECS7/8-00-1

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
ENVIRONMENT AND MARKET (EM)				
1. Key concepts of Environment and Market 2. Products & services available in the market 3. Differentiation of products and services 4. Customers and their buying habits 5. Competition in the market 6. SWOT Analysis	The learner demonstrates an understanding of the concepts of environment and market and how they relate with a career choice in automotive servicing.	The learner independently generates a business idea based on the analysis of the environment and the market in automotive servicing.	LO 1. Generate a business idea that relates with a career choice in automotive servicing 1.1 Conduct SWOT analysis 1.2 Identify the different products/services available in the market 1.3 Compare different products/services in automotive servicing 1.4 Determine the profile of potential customers 1.5 Determine the profile of potential competitors 1.6 Generate potential business ideas based on the SWOT analysis	TLE_ 7/8EM-00-1
LESSON 1: USE BASIC HAND TOOLS AND EQUIPMENT (UT)				
1. Automotive hand tools and equipment	The learner demonstrates an understanding of the operational concept and principles in: 1. Selecting hand tools 2. Identifying serviceable and defective hand tools	The learner independently uses hand tools appropriate to the requirements of the task.	LO 1.1 Select hand tools and equipment 1.1.1 Identify unsafe or defective tools and mark for repair according to procedure	TLE_IAAS7/8UT-0a-1.1
			LO1.2 Classify hand tools and equipment	TLE_IAAS7/8UT-0a-1.2
	3. Using hand tools 4. Performing the task		LO 2. Use hand tools and equipment 2.1 Use hand tools to produce the desired outcomes based on job specifications	TLE_IAAS7/8UT-0a-2

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
2. Maintenance of hand tools and equipment 2.2 Cleaning 2.3 Lubricating 2.4 Tightening 2.5 Simple tool repair 2.6 Hand sharpening	5. Maintaining hand tools and equipment		LO 3. Maintain hand tools and equipment 3.1 Undertake routine maintenance of hand tools and equipment according to standard operating procedure, principles and techniques	TLE_IAAS7/8UT-0b-3
3. Storage of hand tools	6. Storing hand tools		LO 4. Store hand tools in designated location in accordance with manufacturer's instructions/standard operating procedure	TLE_IAAS7/8UT-0b-4
LESSON 2: PERFORM MENSURATION AND CALCULATION (MC)				
1. Four fundamental operations 3.1. Subtraction 3.2. Addition 3.3. Multiplication 3.4. Division	The learner demonstrates an understanding of the concepts and underlying theories and principles in: 1. Fundamental Operations	The learner independently performs mensuration and calculations based on the job requirement.	LO 1. Perform four fundamental operations 1.1 Perform simple calculations involving whole numbers, mixed numbers, fraction and decimal using the four fundamental operations	TLE_IAAS7/8MC-0c-1
2. Conversion of units 3. System of measurement 3.1 English 3.2 Metric	2. System of Measurement 3. Conversion of English to metric (and vice versa)		LO 2. Convert English Unit of measurement to Metric System 2.1. Perform conversion of units to the required figure using the given formula 2.2. Convert English measurements to metric measurements according to procedure	TLE_IAAS7/8MC-0d-2

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
4. Ratio and proportion 5. Area and volume calculation	4. Computing ratio and proportion		LO 3. Perform basic computation of percentage and ratio and proportion 3.1. Compute percentages using appropriate formula 3.2. Use precise and accurate formula for computing area and volume	TLE_IAAS7/8MC-0e-3
LESSON 3: APPLY SAFETY PRACTICES (OS)				
1. Hazard 2. Sign & symbols 3. Occupational health and safety procedures	The learner demonstrates an understanding of safety concepts and practices. 1. Identifying types of hazards 2. Identifying safety signs and symbols 3. Observing occupational health and safety standards	The learner independently applies safety practices in the workplace in accordance with OHS (occupational health and safety) procedures.	LO 1. Identify hazards in the workplace 1.1 Identify hazards in accordance with OHS procedures	TLE_IAAS7/8OS-0f-1
			LO 2. Identify safety signs and symbols 2.1 Recognize and follow safety signs and symbols in accordance with workplace safety procedure	TLE_IAAS7/8OS-0f-2
			LO 3. Observe occupational health and safety standards	TLE_IAAS7/8OS-0f-3
4. Personal protective equipment (PPE)	4. Using personal protective equipment (PPE) 5. Inspecting and checking procedure of (PPE)		LO 4. Use personal protective equipment (PPE) 4.1 Identify Personal Protective Equipment (PPE) as per job requirement 4.2 Observe proper wearing of PPE in accordance with workplace safety procedure	TLE_IAAS7/8OS-0g-4

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
5. Safe handling of tools, equipment and materials	6. Performing safe handling of tools, equipment and materials		LO 5. Perform safe handling of tools, equipment and materials 5.1 Observe proper and safe handling of tools, equipment and materials in accordance with OHS procedures	TLE_IAAS7/8OS-0g-5
6. First Aid	7. Performing first aid		LO 6. Perform first aid 6.1 Carry out first aid treatment of injuries according to recommended procedure	TLE_IAAS7/8OS-0h-6
LESSON 4: READ AND INTERPRET MANUALS /SPECIFICATION (ID)				
1. Manuals and specifications	The learner demonstrates an understanding of the concepts, underlying theories and principles in: 1. Identifying and accessing manual/specification 2. Interpreting manuals 3. Storing manuals	The learner independently reads and interprets manuals and specifications.	LO 1. Read manuals and specifications	TLE_IAAS7/8ID-0i-1
			LO 2. Interpret information and procedure in the manual in accordance with industry practice	TLE_IAAS7/8ID-0i-2
			LO 3. Store manual/specification appropriately to ensure prevention of damage, ready access and updating of information	TLE_IAAS7/8ID-0j-3

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INDUSTRIAL ARTS – AUTOMOTIVE SERVICING
Grade 9 (Specialization)**

Course Description:

This course leads to a specialization in **Automotive Servicing** NC Level I. It covers two (2) core competencies that the **Grade 9** TLE student should possess: 1) servicing automotive battery, and (2) servicing the ignition system and Entrepreneurial concepts

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<p>Introduction</p> <ol style="list-style-type: none"> 1. Basic concepts in automotive servicing 2. Relevance of the course 3. Career opportunities 	<p>The learner demonstrates an understanding of the basic concepts and underlying theories in automotive servicing.</p>	<p>The learner independently demonstrates common competencies in automotive servicing as prescribed by TESDA Training Regulations.</p>	<ol style="list-style-type: none"> 1. Explain basic concepts in automotive servicing 2. Discuss the relevance of the course 3. Explore career opportunities in automotive servicing 	
PERSONAL ENTREPRENEURIAL COMPETENCIES (PeCS)				
<ol style="list-style-type: none"> 1. Assessment of Personal Competencies and Skills (PeCS) vis-à-vis PeCS of a practicing entrepreneur/ employee in locality/town. <ol style="list-style-type: none"> 1.1 Characteristics 1.2 Attributes 1.3 Lifestyle 1.4 Skills 1.5 Traits 2. Analysis of PeCS compared to those of a practitioner 3. Align, strengthen and develop ones PeCS based on the results 	<p>The learner demonstrates an understanding of one’s PeCS in automotive servicing.</p>	<p>The learner recognizes his/her PeCS and prepares an activity plan that aligns with the PeCS of a practitioner/entrepreneur in automotive servicing.</p>	<p>LO 1. Recognize Personal Entrepreneurial Competencies and Skills (PeCS) needed in automotive servicing</p> <ol style="list-style-type: none"> 1.1 Compare one’s PeCS with those of a practitioner/entrepreneur 1.2 Align one’s PeCS with those of a practitioner/entrepreneur 1.3 Assess one’s PeCS 1.4 Assess practitioner’s PeCS 	TLE_PECS9-I0-1

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
ENVIRONMENT AND MARKET (EM)				
<p>Market (Town)</p> <ol style="list-style-type: none"> 1. Key concepts of Market 2. Players in the Market (Competitors) 3. Products & services available in the market 	<p>The learner demonstrates an understanding of the concepts of environment and market and how they relate to the field of automotive servicing, particularly in one’s town/municipality.</p>	<p>The learner independently creates a business vicinity map reflective of the potential automotive servicing market within the locality/town.</p>	<p>LO 1. Recognize and understand the market in automotive servicing</p> <ol style="list-style-type: none"> 1.1 Identify the players/ competitors within the town 1.2 Identify the different products/services available in the market 	<p>TLE_EM9-I0-1</p>
<p>Market (Customer)</p> <ol style="list-style-type: none"> 4. Key concepts in Identifying and Understanding the Consumer 5. Consumer Analysis through: <ol style="list-style-type: none"> 5.1 Observation 5.2 Interviews 5.3 Focus group discussion (FGD) 5.4 Survey 			<p>LO 2. Recognize the potential customer/market in automotive servicing</p> <ol style="list-style-type: none"> 2.1 Identify the profile of potential customers 2.2 Identify the customer’s needs and wants through consumer analysis 2.3 Conduct consumer/market analysis 	<p>TLE_EM9-II0-2</p>
<ol style="list-style-type: none"> 6. Generating Business Ideas <ol style="list-style-type: none"> 6.4 Key concepts in generating business ideas 6.5 Knowledge, skills, passions and interests 6.6 New applications 6.7 Irritants 6.8 Striking ideas (new concepts) 6.9 Serendipity Walk 			<p>LO 3. Create new business ideas in automotive servicing by using various techniques</p> <ol style="list-style-type: none"> 3.1 Explore ways of generating business ideas from ones’ own characteristics/attributes 3.2 Generate business ideas using product innovation from irritants, trends and emerging needs 3.3 Generate business ideas using Serendipity Walk 	<p>TLE_EM9-III0-IV0-3</p>

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
LESSON 1: SERVICE AUTOMOTIVE BATTERY (AB)				
1. Components of batteries 2. Types of batteries 3. Classification of batteries 4. Charging and discharging process 5. Hazards associated with use of batteries 6. Safe handling of batteries	The learner demonstrates an understanding of the principles in servicing the automotive battery.	The learner independently services an automotive battery.	LO 1. Explain the operation and safe handling of different types of batteries 1.1 Identify main components of batteries 1.2 Classify types of batteries 1.3 Observe proper safe handling of batteries 1.4 Identify hazards associated with batteries 1.5 Identify proper and safe disposal of discarded battery materials like solutions and components	TLE_IAAS9AB-Ia-d-1
7. Different types of battery testing 8. Procedure in testing 8.1 Hydrometer 8.2 Cell tester 8.3 Load tester/multitester 9. Testing tools and equipment 10. Personal safety in testing battery 11. Oral and written communication 12. Science and math: solution, electrolyte, ratio and proportion, temperature			LO 2. Demonstrate the testing of an automotive battery 2.1 Select appropriate test equipment 2.2 Test different types of batteries 2.3 Analyze test results 2.4 Compare battery test result based on manufacturer's specification 2.5 Observe safety at all times while doing battery test 2.6 Report findings of test results	TLE_IAAS9AB-Ie-h-2

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
13. Safety procedure in removing/replacing battery is observed 14. Correct tools and equipment in removing/replacing battery is used 15. Hazards in removing/replacing battery 16. Procedure in removing/replacing battery 16.1 Conventional 16.2 Electronic control			LO 3. Demonstrate the procedure in removing and replacing batteries 3.1 Remove battery without causing damage to workplace, property or vehicle 3.2 Follow the proper procedure in replacing battery 3.3 Follow the proper procedure to prevent loss of vehicle's electronic memory as per manufacturer's standard 3.4 Select appropriate tools and equipment 3.5 Observe personal safety in removing and replacing batteries. 3.6 Use appropriate PPE	TLE_IAAS9AB-Ii-j-IIa-b-3
17. Parts and functions of battery charger 18. Repair/clean and replace connectors 19. Topping, filling electrolyte/distilled water 20. Procedure in battery charging 20. 1 Fast 20. 2 Slow 21. Manual/automatic 22. Battery cleaning 23. Proper connection of battery terminals 24. PPE/safety practices			LO 4. Demonstrate the procedure in servicing the battery 4.1 Charge the battery using the appropriate battery charger 4.2 Check electrolyte levels and fill up if necessary 4.3 Clean battery terminals and its connectors 4.4 Connect and disconnect battery clamps in sequence as indicated in the manual 4.5 Observe personal safety in servicing the battery	TLE_IAAS9AB-IIc-f-4

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
25. Jump starting procedure 26. PPE/safety precaution 27. Polarity connection 28. Jump starting connection			LO 5. Demonstrate the procedure in jump starting 5.1 Jump start the battery without causing damage to workplace and property 5.2 Select appropriate jumper leads. 5.3 Connect and disconnect battery clamps in sequence as indicated in the manual 5.4 Observe personal safety in jump starting	TLE_IAAS9AB-IIg-j-5
SERVICING IGNITION SYSTEM (IS)				
1. Parts and function of ignition system components 2. Ignition system troubles and remedies	The learner demonstrates an understanding of the principles in servicing the ignition system.	The learner independently services the ignition system.	LO 1.1 Explain the function of ignition system components 1.1.1 Identify the types of ignition systems 1.1.2 Explain the component parts of the ignition system 1.1.3 Interpret ignition system diagram	TLE_IAAS9IS-IIIa-d-1.1
			LO 1.2 Explain the possible remedies for the identified ignition system troubles	TLE_IAAS9IS-IIIe-h-1.2

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
3. Procedure in disconnecting different wire terminals. 4. Distributor setting procedure 5. Spark test procedure 6. Spark analysis 7. Ignition system wiring diagram			LO 2. Check ignition coil, ballast resistor and high-tension cable resistance 2.1 Inspect and test ignition coil 2.2 Inspect and test ballast resistor 2.3 Check high tension cable resistance 2.4 Test wiring installation 2.5 Test and analyze ignition system electrical spark	TLE_IAAS9IS-IIIi-j-IVa-d-2
8. Use of tools and equipment in ignition timing 9. Procedure in ignition timing 10. Safety precautions in ignition timing 11. Use of measuring instrument 12. Dwell angle measurement 13. RPM measurement			LO 3. Check distributor assembly 3.1 Check dwell angle and RPM 3.2 Check and adjust ignition timing as per service manual 3.3 Evaluate ignition timing performance	TLE_IAAS9IS-IVe-j-3

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INDUSTRIAL ARTS – AUTOMOTIVE SERVICING
Grade 10 (Specialization)**

Prerequisite: Grade 9 Automotive Servicing

Course Description:

This course leads to a specialization in **Automotive Servicing**, NC Level I. It covers entrepreneurial concepts and two core competencies that the **Grade 10** TLE student should possess: (1) testing and repairing wiring/lighting system, and (2) performing underchassis preventive maintenance.

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<p>Introduction</p> <ol style="list-style-type: none"> 1. Basic concepts in automotive servicing 2. Relevance of the course 3. Career opportunities 	<p>The learner demonstrates an understanding of basic concepts and underlying theories in automotive servicing.</p>	<p>The learner independently demonstrates common competencies in automotive servicing as prescribed by TESDA Training Regulations.</p>	<ol style="list-style-type: none"> 1. Explain basic concepts in automotive servicing 2. Discuss the relevance of the course 3. Explore career opportunities automotive servicing 	
PERSONAL ENTREPRENEURIAL COMPETENCIES (PeCS)				
<ol style="list-style-type: none"> 1. Assessment of learner’s Personal Competencies and Skills (PeCS) vis-à-vis those 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 PeCS compared to a practitioner’s PeCS 3. Strengthening and developing further one’s PeCS 	<p>The learner demonstrates an understanding of one’s Personal Competencies and Skills (PeCS) in automotive servicing.</p>	<p>The learner independently creates a plan of action that strengthens/develops one’s PeCS in automotive servicing.</p>	<p>LO 1. Develop and strengthen personal competencies and skills (PeCS) needed automotive servicing</p> <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_PECS10-I0-1

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
ENVIRONMENT AND MARKET (EM)				
1. Product Development 2. Key concepts in developing a product 3. Finding Value 4. Innovation 4.1 Unique Selling Proposition (USP)	The learner demonstrates an understanding of the concepts of environment and market and how they relate to the field of automotive servicing, particularly in one's town/municipality.	The learner independently creates a business vicinity map reflective of the potential automotive servicing market within the locality/town.	LO 1. Develop a product/ service in automotive servicing 1.1 Identify what is of "Value" to the customer 1.2 Identify the customer 1.3 Explain what makes a product unique and competitive 1.4 Apply creativity and innovative techniques to develop marketable product 1.5 Employ a Unique Selling Proposition (USP) to the product/service	TLE_EM10-IO-II0-1
5. Selecting Business Idea 6. Key concepts in selecting a business idea 6.1 Criteria 6.2 Techniques			LO 2. Select a business idea based on the criteria and techniques set 2.1 Enumerate various criteria and steps in selecting a business idea 2.2 Apply the criteria/steps in selecting a viable business idea 2.3 Determine a business idea based on the criteria/techniques set	TLE_EM10-III0-2
7. Branding			LO 3. Develop a brand for the product 3.1 Identify the benefits of having a good brand 3.2 Enumerate recognizable brands in the town/province 3.3 Enumerate the criteria for developing a brand 3.4 Generate a clear appealing product brand	TLE_EM10-IV0-3

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
TESTING AND REPAIRING WIRING/LIGHTING SYSTEM (WS)				
1. Ohm's law 2. Schematic diagram and circuitry 3. Signs and symbols 4. Sizes/color code/ampere rating of wires 5. Polarity, conductor and non-conductors 6. Laws of magnetism and electric charges	The learner demonstrates an understanding of the principles in servicing of the wiring/lighting system.	The learner independently performs servicing of the wiring / lighting system.	LO 1. Explain the principle of auto electricity 1.1 Explain Ohm's law 1.2 Explain the Law of magnetism 1.3 Draw schematic diagram of an electrical circuit 1.4 Interpret signs and symbols. 1.5 Identify size of wire according to job requirement 1.6 Determine polarity, conductor and insulator	TLE_IAAS10WS-Ia-d-1
7. Component parts of the lighting system 8. Functions of: 8.1 Headlights 8.2 Park and tail lights 8.3 Signal/hazard lights 8.4 Back-up lights 8.5 Interior lights 8.6 Horns 9. Occupational health and safety practices			LO 2. Explain Automotive Lighting System and its functions 2.1 Identify components of the lighting system 2.2 Explain functions of lighting system parts 2.3 Observe occupational health and safety practices	TLE_IAAS10WS-Ie-h-2
10. Procedure in installing lighting system 11. Principles of auto electricity and their applications 12. Personal safety requirements 13. Reading and interpreting circuits and diagrams 14. Soldering and crimping 15. Installing/repairing components and wiring			LO 3. Install wiring/lighting system 3.1 Interpret lighting system circuit diagram 3.2 Install electrical devices such as switches, lights and fuse boxes 3.3 Install wires leading to different lights and other relevant devices 3.4 Solder and crimp lead terminals of wires	TLE_IAAS10WS-Ii-j-IIa-b-3

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
16. Hand tools, testing equipment including multi-meters and test lamp. 17. Reading and interpretation of circuit and diagrams 18. Testing and electrical measurements 19. Fault finding using aural, visual and functional assessments for damage, correction, wear and electrical defects 20. Installing/repairing components and wiring 21. Soldering 22. Crimping			LO 4. Test electrical system and determine preferred action 4.1. Test electrical system without causing damage to workplace or vehicle 4.2. Perform correct procedure for testing and interpreting schematic diagram in accordance with the manufacturer's specification 4.3. Determine faults/defects using appropriate tools and techniques 4.4. Execute remedies based on the identified faults/defects	TLE_IAAS10WS-IIc-f-4
23. Procedure in repairing electrical system enumerated. 24. Reading and interpretation of circuit and diagram. 25. Hand tools, testing equipment, multi-testers 26. Open, close and short circuits 27. Occupational, health and safety practices related to job			LO 5. Carry out necessary repair in the electrical system 5.1 Identify procedure in repairing electrical system 5.2 Interpret information based on assessment 5.3 Use appropriate tools, technique and materials in repairing electrical system 5.4 Repair electrical system without causing damage to workplace, property or vehicle	TLE_IAAS10WS-IIg-j-5

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
PERFORMING UNDERCHASSIS PREVENTIVE MAINTENANCE (PM)				
<ol style="list-style-type: none"> 1. Clutch/brake fluid levels and lines 2. Clutch/brake line cracks, twists, bends, looseness and restrictions 3. Master cylinder fluid low level 4. Safe handling of hydraulic fluid 5. Hazards associated with the use of brake fluid 	<p>The learner demonstrates an understanding of the concept of performing underchassis preventive maintenance.</p>	<p>The learner independently performs underchassis preventive maintenance.</p>	<p>LO 1.1 Check clutch and brake fluid and lines</p> <ol style="list-style-type: none"> 1.1.1 Check clutch/brake fluid level and lines for leakage 1.1.2 Check clutch/brake lines for cracks, twists, bends, looseness and restrictions 1.1.3 Refill clutch/brake master cylinder with brake fluid to the specified level 1.1.4 Replace defective clutch/brake system components in accordance with manufacturer’s specification 	TLE_IAAS10PM-IIIa-d-1.1
			<p>LO 1.2 Inspect/bleed brake and clutch system</p>	TLE_IAAS10PM-IIIa-d-1.2
<ol style="list-style-type: none"> 6. Inspect or change transmission gear oil 7. Inspect or change differential gear oil 8. Check leakage of gear oil 9. Refill gear oil 10. Observe procedure and safety 			<p>LO 2. Inspect and change transmission/differential gear oil</p> <ol style="list-style-type: none"> 2.1 Check transmission / differential for leakage 2.2 Check transmission /differential gear oil level 2.3 Change transmission /differential gear oil in accordance with manufacturer’s specification 2.4 Refill transmission/differential gear oil to specified level 	TLE_IAAS10PM-IIIe-h-2
<ol style="list-style-type: none"> 11. Inspecting power steering fluid level 12. Replacing power steering fluid 			<p>LO 3. Inspect/replace power steering fluid</p> <ol style="list-style-type: none"> 3.1 Read technical data pertaining to 	TLE_IAAS10PM-IIIi-j-IVa-b-3

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<p>13. Gather technical data 14. Inspect leakage on linkages</p>			<p>power steering 3.2 Check power steering fluid level 3.3 Inspect power steering for leakage 3.4 Replace power steering fluid in accordance with manufacturer's specification</p>	
<p>15. Automatic transmission fluid specifications 16. Automatic transmission fluid level 17. Hazards and safe handling of automatic transmission fluid (ATF) 18. Check leakage for automatic transmission 19. Refill transmission fluid</p>			<p>LO 4. Check/refill automatic transmission fluid 4.1 Check automatic transmission for leakage 4.2 Check automatic transmission fluid following instructions in service manual 4.3 Refill transmission fluid to specified level</p>	TLE_IAAS10PM-IVc-f-4
<p>20. Determine causes of abnormalities 21. Check tire and tire pressure 22. Check tire studs 23. Check wheel nuts and bolts 24. Inspect tire for solid object struck 25. Inspect tire wear and deformities</p>			<p>LO 5. Check tire and tire pressure 5.1 Inspect tires for stuck solid objects 5.2 Inspect tires for wear and deformities 5.3 Determine causes of abnormal tire wear 5.4 Check tire pressure in accordance with manufacturer's specifications</p>	TLE_IAAS10PM-IVg-j-5

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
GLOSSARY**

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INDUSTRIAL ARTS – AUTOMOTIVE SERVICING
Code Book Legend**

Sample: TLE_IAAS7/8OS-0f-1

LEGEND		SAMPLE	
First Entry	Learning Area and Strand/ Subject or Specialization	Technology and Livelihood Education_Industrial Arts Automotive Servicing	TLE_IA AS 7/8
	Grade Level	Grade 7/8	
Uppercase Letter/s	Domain/Content/ Component/ Topic	Practice Health and Safety Procedure	OS
			-
Roman Numeral <i>*Zero if no specific quarter</i>	Quarter	No Specific Quarter	0
Lowercase Letter/s <i>*Put a hyphen (-) in between letters to indicate more than a specific week</i>	Week	Week Six	f
			-
Arabic Number	Competency	Identify hazards in the workplace	1

DOMAIN/ COMPONENT	CODE
Personal Entrepreneurial Skills	PECS
Environment and Marketing	EM
Use Basic Hand Tools and Equipment	UT
Perform Mensuration and Calculation	MC
Apply Safety Practices	OS
Read and Interpret Manuals/Specifications	ID
Service Automotive Battery	AB
Servicing Ignition System	IS
Testing and Repairing Wiring / Lighting System	WS
Performing Underchassis Preventive Maintenance	PM



Carpentry

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INDUSTRIAL ARTS – CARPENTRY
Grade 7/ 8 (Exploratory)**

Course Description:

This is an exploratory and introductory course which leads to **Carpentry** National Certificate Level II (NC II). It covers **five** common competencies that the **Grade 7/Grade 8** Technology and Livelihood Education (TLE) student ought to possess: (1) using tools, equipment and paraphernalia; (2) performing mensuration and calculation; (3) practicing Occupational Health and Safety (OHS) procedures; (4) maintaining tools, equipment and paraphernalia; and (5) interpreting technical drawing and plans.

The preliminaries of this exploratory 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
<p>Introduction</p> <ol style="list-style-type: none"> 1. Basic concepts in carpentry 2. Relevance of the course 3. Career opportunities 	<p>The learner demonstrates an understanding of the basic concepts and underlying theories in carpentry.</p>	<p>The learner independently demonstrates common competencies in carpentry as prescribed by TESDA Training Regulations.</p>	<ol style="list-style-type: none"> 1. Explain basic concepts in carpentry 2. Discuss the relevance of the course 3. Explore career opportunities in carpentry 	
PERSONAL ENTREPRENEURIAL COMPETENCIES (PeCS)				
<ol style="list-style-type: none"> 1. Assessment of Personal Entrepreneurial Competencies and Skills (PeCS) vis-à-vis a practicing entrepreneur/employee <ol style="list-style-type: none"> 1.1 Characteristics 1.2 Attributes 1.3 Lifestyle 1.4 Skills 1.5 Traits 2. Analysis of one's PeCS 	<p>The learner demonstrates an understanding of one's Personal Entrepreneurial Competencies and Skills (PeCS).</p>	<p>The learner recognizes his/her Personal Entrepreneurial Competencies and Skills (PeCS) and prepares a list of PeCS of a practitioner/entrepreneur in carpentry.</p>	<p>LO 1. Recognize Personal Entrepreneurial Competencies and Skills (PeCS) needed in carpentry</p> <ol style="list-style-type: none"> 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 PeCS with that of a practitioner /entrepreneur 	TLE_PECS7/8-00-1

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
ENVIRONMENT AND MARKET (EM)				
<ol style="list-style-type: none"> 1. Key concepts of Environment and Market 2. Products & services available in the market 3. Differentiation of products and services 4. Customers and their buying habits 5. Competition in the market 6. SWOT Analysis 	The learner demonstrates an understanding of the concepts environment and market and how they relate to a career choice in carpentry.	The learner independently generates a business idea based on the analysis of environment and market in carpentry.	LO 1. Generate a business idea that relates with a career choice in carpentry 1.1 Conduct SWOT analysis 1.2 Identify the different products/services available in the market 1.3 Compare different products/services in the carpentry business 1.4 Determine profile of potential customers 1.5 Determine profile of potential competitors 1.6 Generate potential business ideas based on the SWOT analysis	TLE_EM7/8-00-1
LESSON 1: PREPARE CONSTRUCTION MATERIALS AND TOOLS (UT)				
<ol style="list-style-type: none"> 1. Carpentry tools and construction materials 2. Requisition procedure 3. Inventory of tools and materials <ol style="list-style-type: none"> 3.1 receiving 3.2 inspecting 3.3 recording 	The learner demonstrates an understanding of the underlying principles in the preparation of carpentry tools and construction materials.	The learner independently prepares carpentry tools and construction materials based on industry standards.	LO 1. Identify materials and tools for a task 1.1 Describe tools and materials used in carpentry 1.2 Prepare tools and materials for a task	TLE_IACP7/8UT-0a-1
			LO 2. Request appropriate materials and tools 2.1. Fill out forms in requesting for carpentry tools and materials as required for a task	TLE_IACP7/8UT-0b-2

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			LO 3. Receive and inspect materials 3.1 Check requested tools and materials in accordance with request form	TLE_IACP7/8UT-0b-3
LESSON 2: MAINTAIN TOOLS AND EQUIPMENT (MT)				
1. Hand tools and equipment	The learner demonstrates an understanding of the underlying principles in the maintenance of carpentry tools and equipment.	The learner independently performs maintenance of carpentry tools and equipment based on industry standards.	LO 1. Check condition of tools and equipment 1.1 Segregate defective tool from functional ones 1.2 Label defective tool 1.3 Report the list of defective tools	TLE_IACP7/8MT-0c-1
			LO 2. Perform basic preventive maintenance 2.1 Repair defective tools 2.2 Conduct preventive maintenance of carpentry tools	TLE_IACP7/8MT-0c-2
LESSON 3: PERFORM MENSURATION AND CALCULATION (MC)				
1. Measuring tools and equipment 2. Systems of measurement	The learner demonstrates an understanding of the concepts and underlying principles in performing measurements and calculations.	The learner independently performs accurate measurements and calculation based on a given task.	LO 1. Select measuring instruments 1.1 Identify linear measuring instrument appropriate for a given task	TLE_IACP7/8MC-0d-1
			LO 2. Carry out measurements and calculations 2.1. Measure given materials 2.2. Convert measurements to its equivalent unit/system 2.3. Calculate amount of materials for a specific task	TLE_IACP7/8MC-0d-e-2

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
LESSON 4: INTERPRET DRAWINGS AND PLANS (ID)				
1. Alphabet of lines 2. Isometric and orthographic drawings. 3. Drawing symbols and signs	The learner demonstrates an understanding of the concepts in interpreting technical drawing signs and symbols in carpentry.	The learner independently reads and interprets simple technical drawing signs and symbols based on standard specifications.	LO 1. Analyze signs, symbols and data 1.1 Explain the importance of signs, symbols and data in interpreting a work plan 1.2 Determine appropriate signs and symbols needed in the plan	TLE_IACP7/8ID-0f-1
			LO 2. Interpret technical drawings and plans 2.1 Read working plan 2.2 Interpret working plan	TLE_IACP7/8ID-0f-2
			LO 3. Apply freehand sketching 3.1 Perform freehand sketching exercises 3.2 Draw simple carpentry plans based on given tasks	TLE_IACP7/8ID-0g-h-3
LESSON 5: PRACTICE OCCUPATIONAL HEALTH AND SAFETY PROCEDURE (OS)				
1. Hazards and risks. 2. Safety Regulations. 3. 5S (Seiri, Seiso, Seiton, Seiketsu and Shitsuke)	The learner demonstrates an understanding of the concepts of occupational health and safety procedures.	The learner independently prepares an occupational health and safety checklist being applied in carpentry.	LO 1. Identify hazards and risks 1.1 List down the different health hazards and risks found in the workplace 1.2 Discuss the effects of health hazards and occupational risks	TLE_IACP7/8ID-0i-1
			LO 2. Control hazards and risks 2.1 Formulate safety nets to control hazards and risks in the work place	TLE_IACP7/8ID-0i-2

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			<p>LO 3. Maintain occupational health and safety awareness</p> <p>3.1 Explain the advantages and disadvantages of practicing OHS in the work</p> <p>3.2 Develop checklist on maintaining OHS</p>	<p>TLE_IACP7/8ID-0j-3</p>

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INDUSTRIAL ARTS – CARPENTRY
GRADE 9 (Specialization)**

Course Description:

This is a specialized course which leads to a **Carpentry** National Certificate Level II (NCII). It covers three core competencies that the **Grade 9** Technology and Livelihood Education (TLE) student ought to possess: (1) preparing/staking out building lines, 2) fabricating formworks, and (3) installing formworks components.

The preliminaries of this specialized course include: (1) discussion on the core concepts in carpentry, and (2) explanation and observation of key concepts relative to the course.

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
Introduction 1. Core concepts in carpentry 2. Relevance of the course 3. Career opportunities	The learner demonstrates an understanding of the core concept and underlying theories in carpentry.	The learner independently demonstrates the core competencies in carpentry as prescribed by TESDA Training Regulations.	1. Explain core concepts in carpentry 2. Discuss the relevance of the course 3. Explore career opportunities in carpentry	
PERSONAL ENTREPRENEURIAL COMPETENCIES (PeCS)				
1. Assessment of Personal Competencies and Skills (PeCS) vis-à-vis a practicing entrepreneur/ employee in locality/town. 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 carpentry.	The learner recognizes his/her Personal Entrepreneurial Competencies and Skills (PeCS) and prepares an activity plan that aligns with that of a practitioner/entrepreneur in carpentry.	LO 1. Recognize Personal Entrepreneurial Competencies and Skills (PeCS) needed in carpentry 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	TLE_PECS9-I0-1
ENVIRONMENT AND MARKET (EM)				
Market (Town) 1. Key concepts of Environment and Market	The learner demonstrates an understanding of the concepts environment and market in the	The learner independently creates a business vicinity map reflective of the potential	LO 1. Recognize and understand the market in Carpentry 1.1 Identify the players/ competitors within	TLE_EM9-I0-1

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
2. Players in the Market (Competitors) 3. Products & services available in the market	field of carpentry, particularly in one's town/municipality.	carpentry market within the locality/town.	the town 1.2 Identify the different products/services available in the market	
Market (Customer) 4. Key concepts in Identifying and Understanding the Consumer 5. Consumer Analysis through: 5.1 Observation 5.2 Interviews 5.3 Focus group discussion (FGD) 5.4 Survey			LO 2. Recognize the potential customer/market in Carpentry 2.1 Identify the profile of potential customers 2.2 Identify the customer's needs and wants through consumer analysis 2.3 Conduct consumer/market analysis	TLE_EM9-II0-2
6. Generating Business Ideas 6.1 Key concepts in generating business ideas 6.2 Knowledge, skills, passions and interests 6.3 new application 6.4 Irritants 6.5 Striking ideas (new concept) 6.6 Serendipity Walk			LO 3. Create new business ideas in the carpentry business by using various techniques 3.1 Explore ways of generating business idea from one's own characteristics/attributes 3.2 Generate business ideas using product innovation from irritants, trends and emerging needs 3.3 Generate business ideas using Serendipity Walk	TLE_EM9-III0-IV0-3

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
PREPARE / STAKEOUT BUILDING LINES (BL)				
1. Tools, materials and equipment for staking out building lines 2. Materials estimates 3. Properties of wood for staking-out building lines 4. Economic use of materials 5. Basic geometrical construction 6. Board foot computation 7. Job documentation preparation	The learner demonstrates an understanding in staking out building lines.	The learner independently prepares materials and stakes out building lines in carpentry based on construction standards.	LO 1. Prepare tools, equipment and materials for staking out building lines 1.1 Identify tools and materials for staking out building lines 1.2 Prepare tools and materials for staking out building lines 1.3 Select appropriate Personal Protective Equipment (PPE)	TLE_IACP9BL-Ia-h-1
8. Concepts of setting batter boards 9. Work inspection procedure 10. Types and uses of materials and tools			LO 2. Stake out and set batter boards 2.1 Set out stakes from pre-determined building lines 2.2 Measure, lay out and cut batter board according to specifications 2.3 Set stakes at 0.75-1.00 meter away from the pre-determined building lines 2.4 Secure batter boards with tolerance for dimensions at +/- 5 mm, and levelness of +/- 3 mm 2.5 Use PPE according to job requirements	TLE_IACP9BL-Ii-IIb-2
11. Types and functions of testing tools 12. Occupational health and safety procedures in the workplace 13. Work inspection procedure			LO 3. Fix building lines 3.1 Square building lines with end tolerance of +/- 3 mm 3.2 Measure and set building lines 3.3 Use PPE according to job requirements	TLE_IACP9BL-IIc-h-3

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
Lesson 2 : FABRICATE FORMWORKS (FW)				
<ol style="list-style-type: none"> 1. Tools, materials and equipment for fabricating formworks 2. Materials estimates 3. Properties of wood for fabricating formworks 4. Economic use of materials 5. Linear measurement 6. Board foot computation 7. Job documentation preparation 	The learner demonstrates an understanding of the concepts and underlying principles in fabricating formworks.	The learner independently fabricates formworks based on construction standards.	LO 1. Prepare tools, equipment and materials for fabricating formworks according to job requirements <ol style="list-style-type: none"> 1.1 Identify tools and materials for fabricating formworks 1.2 Prepare tools and materials for fabricating formworks 1.3 Select appropriate PPE 	TLE_IACP9FW-III-IIIId-1
<ol style="list-style-type: none"> 8. Woodworking processes 9. Procedure in laying out and cutting of formworks 10. Linear measurement/board foot measure 11. Job documentation preparation 			LO 2. Lay-out and cut to dimension of form sheathing and stiffeners <ol style="list-style-type: none"> 2.1 Lay out form sheathing and stiffeners with tolerances of +3 mm for all measurements and for squareness 2.2 Mark form sheathing and stiffeners according to job requirements 2.3 Cut form sheathing and stiffeners according to dimension 2.4 Use appropriate PPE 	TLE_IACP9FW-IIIe-j-2
<ol style="list-style-type: none"> 12. Procedure in laying out of formworks 13. Standards spacing of stiffeners 14. Procedure in assembling form panels and stiffeners 15. Practical solutions to problems encountered 			LO 3. Assemble form panels <ol style="list-style-type: none"> 3.1 Lay out form panels and stiffeners for pre-assembly 3.2 Pre-assemble form panels and stiffeners 3.3 Check form panels and stiffeners for squareness according to job requirements 3.4 Assemble form panels and stiffeners 3.5 Use appropriate PPE 	TLE_IACP9FW-IVa-j-3

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INDUSTRIAL ARTS – CARPENTRY
GRADE 10 (Specialization)**

Course Description:

Prerequisite: Grade 9 Carpentry

This is a specialized course which leads to a **Carpentry**, National Certificate Level II (NCII). It covers one (1) core competency that a **Grade 10** Technology and Livelihood Education (TLE) student ought to possess—namely, installing formworks components.

The preliminaries of this specialized course include the following: (1) discussion on the core concept in Carpentry, (2) explanation and observation of key concepts relative to the course.

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<p>Introduction</p> <ol style="list-style-type: none"> 1. Core concepts in carpentry 2. Relevance of the course 3. Career opportunities 	The learner demonstrates an understanding of the core concepts and underlying theories in carpentry.	The learner independently demonstrates the core competency in carpentry as prescribed by TESDA Training Regulations.	<ol style="list-style-type: none"> 1. Explain core concepts in carpentry 2. Discuss the relevance of the course 3. Explore career opportunities in carpentry 	
PERSONAL ENTREPRENEURIAL COMPETENCIES (PeCS)				
<ol style="list-style-type: none"> 1. Assessment of Personal Competencies and Skills (PeCS) vis-à-vis 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 PeCS in relation to a practitioner 3. Strengthening and further development of one's PeCS 	The learner demonstrates an understanding of one's Personal Competencies and Skills (PeCS) in carpentry.	The learner independently creates a plan of action that strengthens/ further develops one's PeCS in carpentry.	<p>LO 1. Develop and strengthen personal competencies and skills (PeCS) needed in carpentry</p> <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_PECS10-IO-1

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
ENVIRONMENT AND MARKET (EM)				
1. Product Development 2. Key concepts in developing a product 3. Finding Value 4. Innovation 5. Unique Selling 5.1 Proposition (USP)	The learner demonstrates an understanding of the concepts environment and market in the field of carpentry, particularly in one's town/municipality.	The learner independently creates a business vicinity map reflective of the potential carpentry market within the locality/town.	LO 1. Develop a product/ service in Carpentry 1.1 Identify what is of "Value" to the customer 1.2 Identify the customer 1.3 Explain what makes a product unique and competitive 1.4 Apply creative and innovative techniques to develop marketable product 1.5 Employ a Unique Selling Proposition (USP) to the product/service	TLE_EM10-I0-II0-1
6. Selecting a Business Idea 7. Key concepts in selecting a business idea 7.1 Criteria 7.2 Techniques			LO 2. Select a business idea based on the criteria and techniques set 2.1 Enumerate various criteria and steps in selecting a business idea 2.2 Apply the criteria/steps in selecting a viable business idea 2.3 Determine a business idea based on the criteria/techniques set	TLE_EM10-III0-2
8. Branding			LO 3. Develop a brand for the product 3.1 Identify the benefits of having a good brand 3.2 Enumerate recognizable brands in the town/province 3.3 Enumerate the criteria for developing a brand 3.4 Generate a clear appealing product brand	TLE_EM10-IV0-3

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
INSTALL FORMWORKS COMPONENTS (IF)				
1. Materials, power and hand tools and equipment uses and specifications 2. Properties of wood and other materials	The learner demonstrates an understanding of the concepts and underlying principles in installing formwork components.	The learner independently installs formwork components based on construction standards.	LO 1. Prepare tools and materials for installing formworks components/form panels 1.1 Identify tools, equipment and materials for job requirements 1.2 Prepare tools, equipment and materials job requirements 1.3 Select appropriate PPE	TLE_IACP10IF-Ia-j-1
3. Assembling and disassembling scaffolding 4. Different scaffold locks, connectors and their uses 5. Equilibrium and stability of a structure			LO 2. Lay-out/assemble scaffolds and braces 2.1 Prepare work areas for safe laying out and assembling of scaffolds and braces 2.2 Assemble scaffolds and braces safely and securely: 2.2.1 free of interference 2.2.2 properly balanced 2.3 Secure connectors, locks and screws 2.4 Select appropriate PPE	TLE_IACP10IF-IIa-IVj-2
6. Steps in setting and fixing formwork /components assembly 7. Proper use of leveling instruments 8. Stress on materials 9. Flexibility 10. Elasticity 11. Axial forces 12. Shear forces			LO 3. Set/fix formworks components/form panels 3.1 Lay out formworks components/form panels with tolerance of +3 mm for measurement, alignment, levelness and plumbness 3.2 Set/fix formworks/form panel according to required job 3.3 Install braces to support the formworks 3.4 Apply form oil to the formworks 3.5 Re-check formworks components/form panels for squareness, levelness and plumbness 3.6 Use appropriate PPE	TLE_IACP10IF-IIa-IVj-3

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
GLOSSARY**

**K to12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INDUSTRIAL ARTS – CARPENTRY
Code Book Legend**

Sample: TLE_IACP10IF-IIa-IVj-2

LEGEND		SAMPLE	
First Entry	Learning Area and Strand/ Subject or Specialization	Technology and Livelihood Education_Industrial Arts Carpentry	TLE_IA CP 10
	Grade Level	Grade 10	
Uppercase Letter/s	Domain/Content/ Component/ Topic	Install Formworks Components	IF
			-
Roman Numeral <i>*Zero if no specific quarter</i>	Quarter	Second to Fourth Quarter	II-IV
Lowercase Letter/s <i>*Put a hyphen (-) in between letters to indicate more than a specific week</i>	Week	Week One to Ten	a-j
			-
Arabic Number	Competency	Lay-out/ Assemble scaffolds and braces	2

DOMAIN/ COMPONENT	CODE
Personal Entrepreneurial Skills	PECS
Environment and Marketing	EM
Prepare Construction Materials and Tools	UT
Perform Mensuration Calculation	MC
Interpret Drawings and Plans	ID
Practice Occupational Health and Safety Procedure	OS
Prepare/ Stakeout Building Lines	BL
Fabricate Formworks	FW
Install Formworks Components	IF



Consumer Electronics Servicing

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INDUSTRIAL ARTS – CONSUMER ELECTRONICS SERVICING
Grade 7/Grade 8 (Exploratory)**

Course Description:

This is an exploratory and introductory course which leads to a **Consumer Electronics Servicing** National Certificate Level II (NCII). It covers **five** common competencies that the **Grade 7/Grade 8** Technology and Livelihood Education (TLE) student ought to possess: (1) using tools, equipment and paraphernalia; (2) performing mensuration and calculation; (3) practicing Occupational Health and Safety (OHS) procedures; (4) maintaining tools, equipment and paraphernalia; and (5) interpreting technical drawing and plans.

The preliminaries of this exploratory 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 1. Basic concepts in electronics servicing 2. Relevance of the course 3. Career opportunities	The learner demonstrates an understanding of the basic concepts and underlying theories in consumer electronics servicing.	The learner independently demonstrates common competencies in electronics servicing as prescribed by TESDA Training Regulations.	1. Explain basic concepts in electronics servicing 2. Discuss the relevance of the course 3. Explore career opportunities in electronics servicing	
PERSONAL ENTREPRENEURIAL COMPETENCIES AND SKILLS (PeCS)				
1. Assessment of Personal Entrepreneurial Competencies and Skills (PeCS) vis-à-vis a practicing entrepreneur/employee 1.1 Characteristics 1.2 Attributes 1.3 Lifestyle 1.4 Skills 1.5 Traits 2. Analysis of one's PeCS	The learner demonstrates an understanding of one's Personal Entrepreneurial Competencies and Skills (PeCS) .	The learner recognizes his/her Personal Entrepreneurial Competencies and Skills (PeCS) and prepares a list of PeCS of a practitioner/entrepreneur in consumer electronics servicing.	LO 1. Recognize Personal Entrepreneurial Competencies and Skills (PeCS) needed in consumer electronics servicing 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 PeCS with those of a practitioner /entrepreneur	TLE_PECS7/8-00-1

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
ENVIRONMENT AND MARKET (EM)				
1. Key concepts of Environment and Market 2. Products & services available in the market 3. Differentiation of products and services 4. Customers and their buying habits 5. Competition in the market 6. SWOT Analysis	The learner demonstrates an understanding of the concepts, environment and market and how they relate with a career choice in consumer electronics servicing.	The learner independently generates a business idea based on the analysis of environment and market in consumer electronics servicing.	LO 1. Generate a business idea that relates with a career choice in Consumer Electronics Servicing 1.1 Conduct SWOT analysis 1.2 Identify the different products/services available in the market 1.3 Compare different products/services in the consumer electronics servicing business 1.4 Determine profile of potential customers 1.5 Determine profile of potential competitors 1.6 Generate potential business ideas based on the SWOT analysis	TLE_EM7/8-00-1
LESSON 1: USE HAND TOOLS (UT)				
1. Electronic hand tools and test equipment	The learner demonstrates an understanding of the underlying principles in the use of electronic hand tools.	The learner independently uses the electronic hand tools.	LO 1. Plan for tasks to be undertaken 1.1 Select the appropriate hand tools for the job/task	TLE_IAES7/8UT-0a-1
			LO 2. Prepare hand tools 2.1 Check hand tools for proper operation and safety	TLE_IAES7/8UT-0a-2
			LO 3. Use appropriate hand tools and test instruments 3.1 Apply the appropriate hand tool for the given tasks	TLE_IAES7/8UT-0b-3

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
LESSON 2: PERFORM MENSURATION AND CALCULATION (MC)				
1. Multi-tester 2. Resistor color coding	The learner demonstrates an understanding of the underlying principles in measurements and calculations.	The learner independently performs accurate measurements and calculation based on given tasks.	LO 1. Select measuring instrument 1.1 Select appropriate measuring instruments for a specific task	TLE_IAES7/8MC-0c-1
			LO 2. Carry out measurement and calculation 2.1 Measure the resistance using a multi-tester 2.2 Compute for the value of resistors based on its color code	TLE_IAES7/8MC-0d-2
LESSON 3: PREPARE AND INTERPRET TECHNICAL DRAWINGS (ID)				
1. Electronics components and electronic symbols 2. Schematic diagrams	The learner demonstrates an understanding of the concepts in interpreting simple technical drawings and electronics diagram.	The learner independently reads and interprets simple technical drawings and diagrams based on IEE (Institution of Electrical Engineers) standards.	LO 1. Prepare the identified electronic component from the identified electronic diagrams 1.1 Describe the electronic component being asked based on the electronic diagram 1.2 Identify the proper electronic component or its equivalent value for the given electronic diagram	TLE_IAES7/8ID-0e-1
			LO2. Interpret technical drawing 2.1 Interpret working plans and electronic diagrams	TLE_IAES7/8ID-0f-2

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
LESSON 4: OBSERVING OCCUPATIONAL HEALTH AND SAFETY (OS)				
1. Personal Protective Equipment (PPE) 2. Safety in the workplace	The learner demonstrates an understanding of the underlying principles in occupational health and safety procedures.	The learner independently prepares occupational health and safety checklist being applied in industries.	LO 1. Identify health hazards and occupational risks 1.1 List down the different health hazards and risks found in the workplace 1.2 Discuss the effects of the health hazards and occupational risks	TLE_IAES7/8OS-0g-1
			LO 2. Observe occupational health and safety practices 2.1 Prepare checklist on observations of occupational health and safety practices	TLE_IAES7/8OS-0h-2
LESSON 5: MAINTAIN HAND TOOLS AND EQUIPMENT (MT)				
1. Maintenance of electronic tools and test instruments	The learner demonstrates an understanding of the concepts in the maintenance of electronic hand tools and test instruments.	The learner independently performs maintenance of electronic hand tools and test instruments based on industry standards.	LO 1. Maintain hand tools 1.1 Check and clean tools and test instruments after each use 1.2 Store hand tools safely in appropriate locations based on manufacturer's specifications or standard operating procedure	TLE_IAES7/8MT-0i-1
			LO 2. Perform preventive maintenance of tools 1.1 Conduct preventive maintenance	TLE_IAES7/8MT-0j-2

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INDUSTRIAL ARTS – CONSUMER ELECTRONICS SERVICING
Grade 9 (Specialization)**

Course Description:

This is a standards based curriculum leading to a TESDA Qualification Standard for a **Consumer Electronics Servicing** National Certificate Level I (N II). It covers two (2) core competencies that the **Grade 9** student should acquire: (1) assembling and disassembling of consumer electronic product and system, and 2) maintaining and repairing electronically controlled domestic appliances.

The preliminaries of this 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
<p>Introduction:</p> <ol style="list-style-type: none"> 1. Core concepts in Electronics Servicing 2. Relevance of the course 3. Employment /Business opportunities 	The learner demonstrates an understanding of the basic concepts and underlying theories in consumer Electronics servicing.	The learner independently demonstrates an understanding of the core competencies in electronics servicing as prescribed by TESDA Training Regulations.	<ol style="list-style-type: none"> 1. Explain core concepts in electronics servicing. 2. Discuss relevance of the course. 3. Explore opportunities for employment/business. 	
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 locality/town. <ol style="list-style-type: none"> 1.1 Characteristics 1.2 Attributes 1.3 Lifestyle 1.4 Skills 1.5 Traits 2. Analysis of one’s PeCS 3. Align, strengthen and develop one’s PeCS based on the results 	The learner demonstrates an understanding of one’s PeCS in consumer electronics Servicing.	The learner recognizes his/her PeCS and prepares an activity plan that aligns with the PeCS of a practitioner/entrepreneur in consumer electronics Servicing.	<p>LO 1. Recognize Personal Entrepreneurial Competencies and Skills (PeCS) needed in Consumer electronics Servicing</p> <ol style="list-style-type: none"> 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 PeCS with those of a practitioner /entrepreneur 1.4 Align one’s PeCS with those of a practitioner/entrepreneur 	TLE_PECS9-I0-1

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
ENVIRONMENT AND MARKET (EM)				
Market (Town) 1. Key concepts of Market 2. Players in the Market (Competitors) 3. Products & services available in the market	The learner demonstrates an understanding of the concepts environment and market in the consumer electronics servicing field, particularly in one's town/municipality.	The learner independently creates a business vicinity map reflective of the potential consumer electronics servicing market within the locality/town.	LO 1. Recognize and understand the market in consumer electronics servicing 1.1 Identify the players/ competitors within the town 1.2 Identify the different products/services available in the market	TLE_EM9-I0-1
Market (Customer) 4. Key concepts of identifying and understanding the consumer 5. Consumer analysis through: 5.1 Observation 5.2 Interviews 5.3 Focus group discussion (FGD) 5.4 Survey			LO 2. Recognize the potential customer/market in Consumer Electronics Servicing 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	TLE_EM9-II0-2
6. Generating business idea 6.1 Key concepts of generating business ideas 6.2 Knowledge & skills, passions, interests 6.3 New application 6.4 Irritants 6.5 Striking ideas (new concept) 6.7 Serendipity Walk			LO 3. Create new business ideas in Consumer Electronics Servicing by using various techniques 3.1 Explore ways of generating business ideas from one's own characteristics/attributes 3.2 Generate business ideas using product innovation from irritants, trends and emerging needs 3.3 Generate business ideas using Serendipity Walk	TLE_EM9-III0-IV0-3

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
ASSEMBLE AND DISASSEMBLE CONSUMER ELECTRONIC PRODUCT AND SYSTEM (40) (AD)				
AC/DC Power Supply 1. Tools, equipment and materials 2. OH&S policies and procedure	The learner demonstrates an understanding of the principles in AC/DC power supply.	The learner independently assembles AC/DC power supply in accordance with manufacturer’s specification.	LO 1. Prepare tools and materials For assembly 1.1 Check required tools, equipment and materials 1.2 Prepare tools and materials according to job requirements	TLE_IAES9AD-Ia-e-1
3. Soldering and soldering processes			LO 2. Solder/ desolder components to the board 3.1 Perform soldering and desoldering processes 3.2 Check soldered products in accordance with quality standards	TLE_IAES9-If-j-2
4. Assembling and disassembling processes			LO 3. Assemble/ disassemble boards 4.1 Perform assembling and disassembling processes 4.2 Observe safety procedure in assembling and disassembling boards 4.3 Check assembled product in accordance with quality standards	TLE_IAES9AD-IIa-e-3
5. Techniques on actual product assembly based on service manuals 6. Product quality standards based on service manual			LO 4. Test and inspect assembled products 4.1 Test finished products in accordance with standard operating procedure 4.2 Document completed work 4.3 Perform proper housekeeping (5S)	TLE_IAES9AD-IIif-j-4
MAINTAIN AND REPAIR ELECTRONICALLY CONTROLLED DOMESTIC APPLIANCES (80) (MR)				
Servicing electronically-controlled domestic	The learner demonstrates an understanding of the concepts	The learner independently maintains and repairs	LO 1. Prepare unit, tools, equipment and workplace for maintenance/repair	TLE_IAES9MR-IIIa-j-1

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<p>appliances with motor and with heating elements</p> <ol style="list-style-type: none"> 1. Electronically-controlled domestic appliances 2. Service manuals 3. Tools, materials and test instruments 	<p>in maintaining and repairing appliances with motor and with heating element:</p> <ol style="list-style-type: none"> 1. blender 2. electric fan 	<p>appliances with motor and with heating element:</p> <ol style="list-style-type: none"> 1. blender 2. electric fan 	<ol style="list-style-type: none"> 1.1 Prepare necessary tools, test instruments and personal protective equipment in line with job requirements 1.2 Acquire service manuals and service information required for repair/maintenance as manufacturer's specifications 1.3 Conduct complete check-up of electronically-controlled domestic appliances 1.4 Document the identified defects based on check-up conducted 	
<ol style="list-style-type: none"> 4. Pre-testing procedure in accordance with the manufacturer's manual 5. Steps in testing components 6. Responsible persons 			<p>LO 2. Diagnose faults of electronically-controlled domestic appliances</p> <ol style="list-style-type: none"> 2.1 Observe systematic pre-testing procedure in accordance with manufacturer's instructions 2.2 Check and isolate circuits using specified testing procedure 2.3 Document results of diagnosis and testing accurately and completely within the specified timeframe 2.4 Explain identified defects and faults based on the result of diagnosis and testing 2.5 Provide data/information regarding the status and serviceability of the unit as per procedure 	TLE_IAES9MR-IIIa-j-2
<ol style="list-style-type: none"> 7. Personal protective equipment (PPE) 8. Troubles and possible remedies 9. Soldering and desoldering process 10. Care and extreme precaution in handling the unit/product as per 			<p>LO 3. Maintain/repair appliances</p> <ol style="list-style-type: none"> 3.1 Use PPE in accordance with OHS practices 3.2 Perform repair activity within the required timeframe 3.3 Observe safety precautions in handling the unit/product as per standard operating procedure 3.4 Replace defective parts/ components with identical or recommended appropriate 	TLE_IAES9MR-IVa-e-3

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
procedure			equivalent ratings 3.5 Solder/mount repaired or replaced parts/components in accordance with industry standards 3.6 Clean unit in accordance with standard operating procedure	
11. Procedure of reassembling repaired units according to procedure			LO 4. Reassemble and test repaired appliances 4.1 Perform final test for reassembled units in conformity with manufacturer's specifications	TLE_IAES9MR-IVf-j-4

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INDUSTRIAL ARTS – CONSUMER ELECTRONICS SERVICING
Grade 10 (Specialization)**

Course Description:

Prerequisite: Grade 9 Consumer Electronics Servicing

This is a standards based curriculum leading to a TESDA Qualification Standard for a **Consumer Electronics Servicing** National Certificate Level I (N II). It covers the core competency of maintaining and repairing electronically-controlled domestic appliances that the Grade 10 student should acquire.

The preliminaries of this 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
<p>Introduction:</p> <ol style="list-style-type: none"> 1. Core concepts in Electronics Servicing 2. Relevance of the course 3. Employment /business opportunities 	<p>The learner demonstrates an understanding of the basic concepts and underlying theories in consumer electronics servicing.</p>	<p>The learner independently demonstrates an understanding of the core competency in electronics servicing as prescribed by TESDA Training Regulations.</p>	<ol style="list-style-type: none"> 1. Explain core concepts in electronics servicing. 2. Discuss relevance of the course. 3. Explore opportunities for employment/business. 	
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 PeCS compared to the PeCS of a practitioner 3. Strengthening and further development of one’s PeCS 	<p>The learner demonstrates an understanding of one’s Personal Competencies and Skills (PeCS) in Consumer Electronics Servicing.</p>	<p>The learner independently creates a plan of action that strengthens/ further develops one’s PeCS in Consumer Electronics Servicing.</p>	<p>LO 1. Develop and strengthen personal competencies and skills (PeCS) needed Consumer Electronics Servicing</p> <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_PECS10-I0-1

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
ENVIRONMENT AND MARKET (EM)				
1. Product Development 2. Key concepts of developing a product 3. Finding Value 4. Innovation 4.1 Unique Selling 4.2 Proposition (USP)	The learner demonstrates an understanding of environment and market in Consumer Electronics Servicing in one's town/municipality.	The learner independently creates a business vicinity map reflective of the potential Consumer Electronics Servicing market within the locality/town.	LO 1. Develop a product/ service in Consumer Electronics Servicing 1.1 Identify what is of "Value" to the customer 1.2 Identify the customer 1.3 Explain what makes a product unique and competitive 1.4 Apply creative and innovative techniques to develop marketable product 1.5 Employ a Unique Selling Proposition (USP) to the product/service	TLE_EM10-IO-II0-1
5. Selecting a Business Idea 6. Key concepts in Selecting a Business Idea 6.1 Criteria 6.2 Techniques			LO 2. Select a business idea based on the criteria and techniques set 2.1 Enumerate various criteria and steps in selecting a business idea 2.2 Apply the criteria/steps in selecting a viable business idea 2.3 Determine a business idea based on the criteria/techniques set	TLE_EM10-III0-2
7. Branding			LO 3. Develop a brand for the product 3.1 Identify the benefits of having a good brand 3.2 Enumerate recognizable brands in the town/province 3.3 Enumerate the criteria for developing a brand 3.4 Generate a clear appealing product brand	TLE_EM10-IV0-3

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
MAINTAIN AND REPAIR ELECTRONICALLY CONTROLLED DOMESTIC APPLIANCES (80) MR				
<p>Servicing electronically-controlled domestic appliances with motor and with heating elements</p> <ol style="list-style-type: none"> 1. Electronically controlled domestic appliances 2. Service manuals 3. Tools, materials and test instruments 	<p>The learner demonstrates an understanding of the concepts in maintaining and repairing appliances with motor and with a heating element:</p> <ol style="list-style-type: none"> 1. washing machine 2. flat iron 3. microwave oven 4. rice cooker 	<p>The learner independently maintains and repairs appliances with motor and with a heating element:</p> <ol style="list-style-type: none"> 1. washing machine 2. flat iron 3. microwave oven 4. rice cooker 	<p>LO 1. Prepare unit, tools, equipment and workplace for maintenance/repair</p> <ol style="list-style-type: none"> 1.1 Prepare necessary tools, test instruments and personal protective equipment in line with job requirements 1.2 Acquire service manuals and service information required for repair/maintenance as manufacturer's specifications 1.3 Conduct complete check-up of electronically-controlled domestic appliances 1.4 Document the identified defects based on check-up conducted 	<p>LE_IAES10MR-Ia-j-1</p>
<ol style="list-style-type: none"> 4. Pre-testing procedure in accordance with the manufacturer's manual. 5. Steps in testing components 6. Responsible persons 			<p>LO 2. Diagnose faults of electronically-controlled domestic appliances</p> <ol style="list-style-type: none"> 2.1 Observe systematic pre-testing procedure in accordance with manufacturer's instructions 2.2 Check and isolate circuits using specified testing procedure 2.3 Document results of diagnosis and testing accurately and completely within the specified timeframe 2.4 Explain identified defects and faults based on the result of diagnosis and testing 2.5 Provide data/information regarding the status and serviceability of the unit as per procedure 	<p>TLE_IAES10MR-Ia-j-2</p>

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
7. Personal protective equipment (PPE) 8. Troubles and possible remedies 9. Soldering and desoldering process 10. Care and extreme precaution in handling the unit/product as per procedure			LO 3. Maintain/repair appliances 3.1 Use PPE in accordance with OHS practices 3.2 Perform repair activity within the required timeframe 3.3 Observe safety precautions in handling the unit/product as per standard operating procedure 3.4 Replace defective parts/ components with identical parts or recommended parts with equivalent ratings 3.5 Solder/mount repaired or replaced parts/components in accordance with industry standards 3.6 Clean unit in accordance with standard operating procedure	TLE_IAES10MR-IIa-IVj-3
11. Procedure of reassembling repaired units according to procedure			LO 4. Reassemble and test repaired appliances 4.1 Perform final test for reassembled units in conformity with manufacturer's specifications	TLE_IAES10MR-IIa-IVj-4

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
GLOSSARY**

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INDUSTRIAL ARTS – CONSUMER ELECTRONICS SERVICING
Code Book Legend**

Sample: TLE_IAES7/8UT-0a-1

LEGEND		SAMPLE	
First Entry	Learning Area and Strand/ Subject or Specialization	Technology and Livelihood Education_Industrial Arts Consumer Electronics Servicing	TLE_IAES7/8
	Grade Level	Grade 7/8	
Uppercase Letter/s	Domain/Content/ Component/ Topic	Use hand tools	UT
			-
Roman Numeral <i>*Zero if no specific quarter</i>	Quarter	No Specific Quarter	0
Lowercase Letter/s <i>*Put a hyphen (-) in between letters to indicate more than a specific week</i>	Week	No Specific Week	0
			-
Arabic Number	Competency	Plan for tasks to be undertaken	1

DOMAIN/ COMPONENT	CODE
Personal Entrepreneurial Skills	PECS
Environment and Marketing	EM
Use Hand Tools	UT
Prepare and Interpret Technical Drawings	ID
Observe Occupational Health and Safety	OS
Maintain Hand Tools and Equipment	MT
Assemble and Disassemble Consumer Electronic Product and System	AD
Maintain and Repair Electronically Controlled Domestic Appliances	MR



Electrical Installation and Maintenance

**Kto12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INDUSTRIAL ARTS – ELECTRICAL INSTALLATION AND MAINTENANCE
Grade 7/Grade 8 (Exploratory)**

Course Description:

This is an exploratory and introductory course which leads to an **Electrical Installation and Maintenance** National Certificate Level II (NCII). It covers **five** common competencies that the **Grade 7/Grade 8** Technology and Livelihood Education (TLE) student ought to possess: (1) using tools, equipment and paraphernalia, 2) performing mensuration and calculation, 3) practicing Occupational Health and Safety (OHS) procedures, 4) maintaining tools, equipment and paraphernalia, and 5) interpreting technical drawing and plans.

The preliminaries of this exploratory 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
<p>Introduction</p> <ol style="list-style-type: none"> 1. Basic concepts in Electrical Installation and Maintenance 2. Relevance of the course 3. Career opportunities 	<p>The learner demonstrates an understanding of the basic concepts and underlying theories in electrical installation and maintenance.</p>	<p>The learner independently demonstrates common competencies in electrical installation and maintenance as prescribed by TESDA Training Regulations.</p>	<ol style="list-style-type: none"> 1. Explain basic concepts in electrical installation and maintenance 2. Discuss the relevance of the course 3. Explore career opportunities in electrical installation and maintenance 	
PERSONAL ENTREPRENEURIAL COMPETENCIES (PeCS)				
<ol style="list-style-type: none"> 1. Assessment of Personal Entrepreneurial Competencies and Skills (PeCS) vis-à-vis those of a practicing entrepreneur/employee <ol style="list-style-type: none"> 1.1 Characteristics 1.2 Attributes 1.3 Lifestyle 1.4 Skills 1.5 Traits 2. Analysis of one's PeCS 	<p>The learner demonstrates an understanding of one's Personal Entrepreneurial Competencies and Skills (PeCS).</p>	<p>The learner recognizes his/her PeCS and prepares a list of PeCS of a practitioner/entrepreneur in electrical installation and maintenance.</p>	<p>LO 1. Recognize Personal Entrepreneurial Competencies and Skills (PeCS) needed in electrical installation and maintenance</p> <ol style="list-style-type: none"> 1.1 Assess one's PeCS: characteristics, attributes, lifestyle, skills, traits 1.2 Assess practitioner's PeCS: characteristics, attributes, lifestyle, skills, traits 1.3 Compare one's PeCS with those of a practitioner /entrepreneur 	TLE_PECS7/8-00-1

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
ENVIRONMENT AND MARKET (EM)				
<ol style="list-style-type: none"> 1. Key concepts of Environment and Market 2. Products & services available in the market 3. Differentiation of products and services 4. Customers and their buying habits 5. Competition in the market 6. SWOT Analysis 	<p>The learner demonstrates an understanding of the concepts of environment and market and how they relate with a career choice in electrical installation and maintenance.</p>	<p>The learner independently generates a business idea based on the analysis of environment and market in electrical installation and maintenance</p>	<p>LO 1. Generate a business idea that relates with a career choice in electrical installation and maintenance</p> <ol style="list-style-type: none"> 1.1 Conduct SWOT analysis 1.2 Identify the different products/services available in the market 1.3 Compare different products/services in the electrical installation and maintenance business 1.4 Determine the profile of potential customers 1.5 Determine the profile of potential competitors 1.6 Generate potential business ideas based on the SWOT analysis 	TLE_EM7/8-00-1
LESSON 1: PREPARE ELECTRICAL MATERIALS AND TOOLS (UT)				
<ol style="list-style-type: none"> 1. Electrical materials and tools 2. Different types of forms 	<p>The learner demonstrates an understanding of the concepts in the preparing electrical materials and tools using the different forms in electrical installation and maintenance.</p>	<p>The learner independently prepares appropriate electrical materials and tools using the different forms in electrical installation and maintenance based on industry standards.</p>	<p>LO 1. Prepare electrical materials and tools for the task</p> <ol style="list-style-type: none"> 1.1 Prepare a list of electrical tools and materials for a specific job 	TLE_IAEI7/8UT-0a-1
			<p>LO 2. Request appropriate electrical supplies materials and tools applicable to a specific job</p> <ol style="list-style-type: none"> 2.1 Use the appropriate form in requesting for electrical tools, supplies and materials for a specific job 	TLE_IAEI7/8UT-0a-2

**Kto12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			LO 3. Receive and inspect electrical supplies, materials and tools 3.1 Check and control received items on the list	TLE_IAEI7/8MT-0b-3
LESSON 2: PERFORM MENSURATION AND CALCULATIONS (MC)				
1. Measurement 2. Ohm's Law 3. Multitester	The learner demonstrates an understanding of the concepts and underlying principles in performing measurements and calculations.	The learner independently performs accurate measurements and calculation based on given tasks.	LO 1. Select electrical measuring tools and instruments 1.1 Identify object or component to be measured 1.2 Choose test instruments to be used for specific tasks 1.3 Identify alternative measuring tools without sacrificing cost and quality of work	TLE_IAEI7/8MC-0c-1
			LO 2. Carry out measurements and calculations 2.1 Use appropriate measuring devices for specific tasks 2.2 Compute for required data 2.3 Convert data to its equivalent unit of measurement	TLE_IAEI7/8MC-0d-2
LESSON 3: INTERPRET TECHNICAL DRAWINGS AND PLANS (ID)				
1. Basic technical drawing 2. Technical Plans and Schematic Diagram 3. Signs, Symbols and Abbreviations	The learner demonstrates an understanding of the concepts and underlying principles in interpreting simple technical drawings and plans in electrical installation and maintenance.	The learner independently reads and interprets specifications of simple technical drawings and plans.	LO 1. Analyze signs, electrical symbols and data 1.1 Read and interpret electrical signs, symbols and data 1.2 Analyze electrical components and materials based on electrical signs, symbols and data	TLE_IAEI7/8ID-0e-1

**Kto12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			<p>LO 2. Interpret technical drawings and plans</p> <p>2.1 Read blueprints of electrical plans, diagrams and circuits</p> <p>2.2 Identify necessary tools, materials and equipment according to blueprints of electrical plans, diagrams and circuits</p>	TLE_IAEI7/8ID-0e-2
LESSON 4: MAINTAIN TOOLS AND EQUIPMENT (MT)				
<p>1. Electrical tools and equipment</p> <p>2. Maintenance of tools and equipment</p>	<p>The learner demonstrates an understanding of the underlying principles in the maintenance of electrical tools and equipment.</p>	<p>The learner independently performs proper maintenance of electrical tools and equipment based on industry standards.</p>	<p>LO 1. Check condition of tools and equipment</p> <p>1.1 Label functional and non-functional tools and equipment</p>	TLE_IAEI7/8MT-0f-1
			<p>LO 2. Perform basic maintenance</p> <p>2.1 Clean and lubricate tools</p> <p>2.2 Observe periodic preventive and maintenance of electrical tools and equipment</p> <p>2.2.1 Sharpening</p> <p>2.2.2 Oiling</p> <p>2.2.3 Insulating</p>	TLE_IAEI7/8MT-0f-2
			<p>LO 3. Store tools and equipment</p> <p>3.1 Prepare inventory of tools and equipment</p> <p>3.2 Store tools and equipment in their proper places</p>	TLE_IAEI7/8MT-0g-3

**Kto12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
LESSON 5: PRACTICE OCCUPATIONAL HEALTH AND SAFETY PROCEDURE (OS)				
1. Occupational health and safety procedures	The learner demonstrates an understanding of the concepts and underlying principles of occupational health and safety procedures.	The learner independently simulates occupational health and safety procedures.	LO1. Identify hazards and risks 1.1 List down hazards and risks in the workplace	TLE_IAEI7/8OS-0h-1
			LO2. Control hazards and risks 2.1 Determine effects of hazards and risks 2.2 Evaluate hazards and risks 2.3 Follow procedure for controlling hazards and risks in the workplace	TLE_IAEI7/8OS-0i-2
			LO3. Practice OHSP	TLE_IAEI7/8OS-0j-3

**Kto12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INDUSTRIAL ARTS – ELECTRICAL INSTALLATION AND MAINTENANCE
GRADE 9 (SPECIALIZATION)**

Course Description:

This is specialization course which leads to an **Electrical Installation and Maintenance** National Certificate Level II (NCII). It covers three core competencies that the **Grade 9** Technology and Livelihood Education (TLE) student ought to possess: (1) preparing electric and hydraulic tools, (2) performing roughing-in and wiring activities for bus and under floor ducts, and (3) installing wiring devices for floor and ground fault current interrupting outlets.

The preliminaries of this exploratory 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
<p>Introduction</p> <ol style="list-style-type: none"> 1. Basic concepts in electrical installation and maintenance 2. Relevance of the course 3. Career opportunities 	<p>The learner demonstrates an understanding of the basic concepts and underlying theories of electrical installation and maintenance.</p>	<p>The learner independently demonstrates common competencies in electrical installation and maintenance as prescribed by TESDA Training Regulations.</p>	<ol style="list-style-type: none"> 1. Explain basic concepts in electrical installation and maintenance 2. Discuss the relevance of the course 3. Explore career opportunities in electrical installation and maintenance 	
PERSONAL ENTREPRENEURIAL COMPETENCIES (PeCS)				
<ol style="list-style-type: none"> 1. Assessment of Personal Competencies and Skills (PeCS) vis-à-vis PeCS of a practicing entrepreneur/employee in locality/town. <ol style="list-style-type: none"> 1.1 Characteristics 1.2 Attributes 1.3 Lifestyle 1.4 Skills 1.5 Traits 2. Analysis of PeCS compared to PeCS of a practitioner 3. Align, strengthen and develop one's PeCS based on the results 	<p>The learner demonstrates an understanding of one's Personal Competencies and Skills (PeCS) in electrical installation and maintenance.</p>	<p>The learner recognizes his/her PeCS and prepares an activity plan that aligns with the PeCS of a practitioner/entrepreneur in electrical installation and maintenance.</p>	<p>LO 1. Recognize Personal Entrepreneurial Competencies and Skills (PeCS) needed in electrical installation and maintenance</p> <ol style="list-style-type: none"> 1.1 Assess one's PeCS: characteristics, attributes, lifestyle, skills, traits 1.4 Assess practitioner's PeCS: characteristics, attributes, lifestyle, skills, traits 1.5 Compare one's PeCS with those of a practitioner /entrepreneur 1.6 Align one's PeCS with those of a practitioner/entrepreneur 	TLE_PECS9-I0-1

**Kto12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
ENVIRONMENT AND MARKET (EM)				
Market (Town) 1. Key concepts of Environment and Market 2. Players in the Market (Competitors) 3. Products & services available in the market	The learner demonstrates an understanding of the concepts of environment and market and how they relate to the field of electrical installation and maintenance, particularly in one's town/municipality.	The learner independently creates a business vicinity map reflective of the potential electrical installation and maintenance market within the locality/town.	LO 1. Recognize and understand the market in electrical installation and maintenance 1.1 Identify the players/ competitors within the town 1.2 Identify the different products/services available in the market	TLE_EM9-IO-1
Market (Customer) 4. Key concepts in Identifying and Understanding the Consumer 5. Consumer Analysis through: 5.1 Observation 5.2 Interviews 5.3 Focus group discussion 5.4 Survey			LO 2. Recognize the potential customer/market in electrical installation and maintenance 2.1 Identify the profile of potential customers 2.2 Identify the customer's needs and wants through consumer analysis 2.3 Conduct consumer/market analysis	TLE_EM9-II0-2
6. Generating Business Ideas 6.1 Key concepts in Generating Business Ideas 6.2 Knowledge & Skills, Passions, Interests 6.3 New application 6.4 Irritants 6.5 Striking ideas (new concept) 6.6 Serendipity Walk			LO 3. Create new business ideas for the electrical installation and maintenance business by using various techniques 3.1 Explore ways of generating business ideas from ones' own characteristics/attributes 3.2 Generate business ideas using product innovation from irritants, trends and emerging needs 3.3 Generate business ideas using Serendipity Walk	TLE_EM9-III0-IV0-3

**Kto12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
LESSON 1: PREPARE ELECTRIC AND HYDRAULIC TOOLS (ET)				
<ol style="list-style-type: none"> 1. Standard application of electric and hydraulic tools 2. Types of electrical tools, instruments, materials and their specifications 3. Hand tools 4. Proper maintenance of electric and hydraulic tools 5. Specification of electric and hydraulic tools 6. Electric and hydraulic tools safety practices 7. Electrical symbols used in electrical plan 	<p>The learner demonstrates an understanding of the principles in the preparation of electric and hydraulic tools.</p>	<p>The learner independently prepares electric and hydraulic tools for the task.</p>	<p>LO 1. Select electric and hydraulic tools</p> <ol style="list-style-type: none"> 1.1 Request tools, equipment and materials 1.2 Identify electric and hydraulic tools for the task 1.3 Inspect tools and equipment for damage prior to its use 1.4 Report damaged tools 	TLE_IAEI9ET-Ia-e-1
			<p>LO 2. Maintain electric and hydraulic tools</p> <ol style="list-style-type: none"> 2.1 Check the conditions of electric and hydraulic tools 2.2 Lubricate electric tools in line with manufacturer’s specification 2.3 Replace auxiliary part of electric and hydraulic tools according to manufacturer’s specifications 2.4 Store electric and hydraulic tools 	TLE_IAEI9ET-If-j-2
LESSON 2: PERFORM ROUGHING-IN ACTIVITIES FOR COMMUNICATION AND DISTRIBUTION SYSTEM (RC)				
<ol style="list-style-type: none"> 1. PEC provisions on electrical metallic conduits 2. Bending electrical metallic conduit 3. Procedure in installing electrical metallic conduit 4. Safety procedure in installing electrical metallic conduits 	<p>The learner demonstrates an understanding of the principles in performing roughing-in activities.</p>	<p>The learner independently performs roughing-in activities based on the Philippine Electrical Code (PEC) and National Electrical Code (NEC).</p>	<p>LO 1. Install electrical metallic tubing</p> <ol style="list-style-type: none"> 1.1 Prepare tools/equipment and materials needed for the installation of electrical metallic tubing in line with job requirements 1.2 Install electrical metallic tubing according to the job requirements following PEC and NEC 1.3 Observe safety procedure in installing electrical metallic tubing 1.4 According to OHS guidelines and procedures 	TLE_IAEI9RC-IIa-j-1

**Kto12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<p>5. PEC/NEC provisions on wire ways and cable trays</p> <p>6. Procedure in installing wire ways and cable trays</p> <p>7. Safety procedure in installing wire ways and cable trays</p>			<p>LO 2. Install wireways and cable trays</p> <p>2.1 Prepare tools/equipment and materials needed for the installation of wire ways and cable trays in line with job requirements</p> <p>2.2 Install wire ways and cable trays according to the job requirements following PEC and NEC</p> <p>2.3 Observe safety procedure in installing wire ways and cable trays according to OHS guidelines and procedures</p>	TLE_IAEI9RC-IIIa-j-2
<p>8. PEC/NEC provisions on telephone terminal cabinet</p> <p>9. Procedure in installing telephone terminal cabinet trays</p> <p>10. Safety procedure in installing telephone terminal cabinet</p>			<p>LO 3. Install telephone terminal cabinet</p> <p>3.1 Prepare tools/equipment and materials needed for the installation of telephone terminal cabinet in line with job requirement.</p> <p>3.2 Install telephone terminal cabinet according to the job requirements following PEC and NEC</p> <p>3.3 Observe safety procedure in installing telephone terminal cabinet according to OHS guidelines and procedures.</p>	TLE_IAEI9RC-IVa-e-3
<p>11. PEC provisions on cable bridge</p> <p>12. Procedure in installing cable bridge</p> <p>13. Safety procedure in installing cable bridge</p>			<p>LO 4. Install cable bridge</p> <p>4.1 Prepare tools/equipment and materials needed for the installation of cable bridge in line with job requirements</p> <p>4.2 Install cable bridge according to the job requirements following PEC and NEC</p> <p>4.3 Observe safety procedure in installing cable bridge according to OHS guidelines and procedures</p>	TLE_IAEI9RC-IVf-j-4

**Kto12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INDUSTRIAL ARTS – ELECTRICAL INSTALLATION AND MAINTENANCE
GRADE 10 (Specialization)**

Prerequisite: Grade 9 Electrical Installation and Maintenance

Course Description:

This is specialization course which leads to an **Electrical Installation and Maintenance** National Certificate Level II (NCII). It covers the core competency that a Grade **10** Technology and Livelihood Education (TLE) student ought to possess—namely, installing wiring devices for floor and ground fault current interrupting outlets.

The preliminaries of this exploratory 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
<p>Introduction</p> <ol style="list-style-type: none"> 1. Basic concepts in electrical installation and maintenance 2. Relevance of the course 3. Career opportunities 	<p>The learner demonstrates an understanding of the basic concepts and underlying theories in electrical installation and maintenance.</p>	<p>The learner independently demonstrates an common competencies in electrical installation and maintenance as prescribed by TESDA Training Regulations.</p>	<ol style="list-style-type: none"> 1. Explain basic concepts in electrical installation and maintenance 2. Discuss the relevance of the course 3. Explore career opportunities in electrical installation and maintenance 	
PERSONAL ENTREPRENEURIAL COMPETENCIES (PeCS)				
<ol style="list-style-type: none"> 1. Assessment of learner’s Personal Competencies and Skills (PeCS) vis-à-vis those 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 PeCS compared to those of a practitioner 3. Strengthening and further development of one’s PeCS 	<p>The learner demonstrates an understanding of one’s Personal Competencies and Skills (PeCS) in electrical installation and maintenance.</p>	<p>The learner independently creates a plan of action that strengthens/ further develops one’s PeCS in electrical installation and maintenance.</p>	<p>LO 1. Develop and strengthen personal competencies and skills (PeCS) needed in Electrical Installation and Maintenance</p> <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_PECS10-I0-1

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
ENVIRONMENT AND MARKET (EM)				
1. Product Development 2. Key concepts in developing a product 3. Finding Value 4. Innovation 4.1 Unique Selling Proposition (USP)	The learner demonstrates an understanding of the concepts environment and market in the electrical installation and maintenance field, particularly in one's town/municipality.	The learner independently creates a business vicinity map reflective of the potential electrical installation and maintenance within the locality/town.	LO 1. Develop a product/ service in electrical installation and maintenance 1.1 Identify what is of "Value" to the customer 1.2 Identify the customer 1.3 Explain what makes a product unique and competitive 1.4 Apply creative and innovative techniques to develop marketable product 1.5 Employ a Unique Selling Proposition (USP) to the product/service	TLE_EM10-I0-II0-1
5. Selecting a Business Idea 6. Key concepts in Selecting a Business Idea 6.1 Criteria 6.2 Techniques			LO 2. Select a business idea based on the criteria and techniques set 2.1 Enumerate various criteria and steps in selecting a business idea 2.2 Apply the criteria/steps in selecting a viable business idea 2.3 Determine a business idea based on the criteria/techniques set	TLE_EM10-III0-2
7. Branding			LO 3. Develop a brand for the product 7.1 Identify the benefits of having a good brand 7.2 Enumerate recognizable brands in the town/province 7.3 Enumerate the criteria for developing a brand 7.4 Generate a clear appealing product brand	TLE_EM10-IV0-3

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
INSTALLING WIRING DEVICES FOR FLOOR AND GROUND FAULT CURRENT INTERRUPTING OUTLETS (WD)				
<ol style="list-style-type: none"> 1. Standard application of tools, materials and equipment in accordance with PEC (Philippine Electrical Code) /NEMA 2. (National Electrical Manufacturers Association) 3. Safety procedure for handling electrical materials and devices 4. Specifications of electrical supplies and materials 	<p>The learner demonstrates an understanding of the underlying principles in installing wiring devices.</p>	<p>The learner independently installs wiring devices for floor and ground fault current interrupter.</p>	<p>LO 1. Select the wiring devices used for floor and ground fault current interrupter</p> <ol style="list-style-type: none"> 1.1 Interpret plan/drawings for the selection of wiring devices based on the job requirement 1.2 Identify the correct quantity of wiring materials and devices to be used based on job requirement 1.3 Select tools and equipment to be used based on job requirement 1.4 Select appropriate Personal Protection Equipment (PPE) 	<p>TLE_IAEI10WD-Ia-IIj-1</p>
<ol style="list-style-type: none"> 5. Standard application of tools, materials and equipment in accordance with PEC/NEMA 6. Basic methods and requirements for the installation 7. Specifications of electrical supplies and materials 			<p>LO 2. Install the wiring devices for floor and ground fault current interrupter based on PEC standards</p> <ol style="list-style-type: none"> 2.1 Interpret plan/drawings based on the job requirement 2.2 Install the wiring devices for floor and ground fault current interrupter in accordance with PEC 2.3 Observe safety procedure in installing the wiring devices for floor and ground fault current interrupter in accordance with OHS procedures 	<p>TLE_IAEI10WD-IIIa-IVj-2</p>

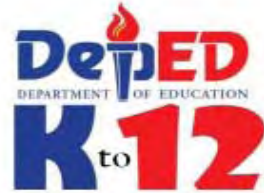
**Kto12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
GLOSSARY**

**Kto12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INDUSTRIAL ARTS – ELECTRICAL INSTALLATION AND MAINTENANCE
Code Book Legend**

Sample: TLE_IAEI9RC-IVf-j-4

LEGEND		SAMPLE	
First Entry	Learning Area and Strand/ Subject or Specialization	Technology and Livelihood Education_Industrial Arts Electrical Installation and Maintenance	TLE_IA EI 9
	Grade Level	Grade 9	
Uppercase Letter/s	Domain/Content/ Component/ Topic	Perform Roughing-in Activities for Communication and Distribution	RC
Roman Numeral <i>*Zero if no specific quarter</i>	Quarter	Fourth Quarter	IV
Lowercase Letter/s <i>*Put a hyphen (-) in between letters to indicate more than a specific week</i>	Week	Week Six to Ten	f-j
			-
Arabic Number	Competency	Install cable bridge	4

DOMAIN/ COMPONENT	CODE
Personal Entrepreneurial Competencies	PECS
Environment and Marketing	EM
Prepare Electrical Materials and Tools	UT
Perform Mensuration and Calculations	MC
Interpret Technical Drawings and Plans	ID
Maintain Tools and Equipment	MT
Practice Occupational Health and Safety Procedure	OS
Prepare Electric and Hydraulic Tools	ET
Perform Roughing-in Activities for Communication and Distribution	RC
Installing Wiring Devices for Floor and Ground Fault Current Interrupting Outlets	WD



Plumbing

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INDUSTRIAL ARTS – PLUMBING
Grade 7/8 (Exploratory)**

Course Description:

This is an exploratory and introductory course which leads to **Plumbing** National Certificate Level II (NC II). It covers five common competencies that the **Grade 7/Grade 8** Technology and Livelihood Education (TLE) student ought to possess: (1) using tools, equipment and paraphernalia; (2) performing mensuration and calculation; (3) practicing Occupational Health and Safety (OHS) procedure; (4) maintaining tools, equipment and paraphernalia; and (5) interpreting technical drawing and plans.

The preliminaries of this exploratory course include the following: 1) discussion on the relevance of the course; 2) explanation of key concepts relative to the course and; 3) exploration on career opportunities.

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<p>Introduction</p> <ol style="list-style-type: none"> 1. Basic concepts in plumbing 2. Relevance of the course 3. Career opportunities 	<p>The learner demonstrates an understanding of the basic concepts and underlying theories in plumbing.</p>	<p>The learner independently demonstrates common competencies in plumbing as prescribed by TESDA Training Regulations.</p>	<ol style="list-style-type: none"> 1. Explain basic concepts in plumbing 2. Discuss the relevance of the course 3. Explore career opportunities in plumbing 	
PERSONAL ENTREPRENEURIAL COMPETENCIES (PeCS)				
<ol style="list-style-type: none"> 1. Assessment of Personal Entrepreneurial Competencies and Skills (PeCS) vis-à-vis a practicing entrepreneur/employee <ol style="list-style-type: none"> 1.1 Characteristics 1.2 Attributes 1.3 Lifestyle 1.4 Skills 1.5 Traits 2. Analysis of one's PeCS 	<p>The learner demonstrates an understanding of one's Personal Entrepreneurial Competencies and Skills (PeCS).</p>	<p>The learner recognizes his/her Personal Entrepreneurial Competencies and Skills (PeCS) and prepares a list of PeCS of a practitioner/entrepreneur in plumbing.</p>	<p>LO 1. Recognize Personal Entrepreneurial Competencies and Skills (PeCS) needed in plumbing</p> <ol style="list-style-type: none"> 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 PeCS with that of a practitioner /entrepreneur 	TLE_PECS7/8-00-1

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
ENVIRONMENT AND MARKET (EM)				
1. Key concepts of Environment and Market 2. Products & services available in the market 3. Differentiation of products and services 4. Customers and their buying habits 5. Competition in the market 6. SWOT Analysis	The learner demonstrates an understanding of the concepts environment and market that relate to a career choice in plumbing.	The learner independently generates a business idea based on the analysis of the environment and the market in plumbing.	LO 1. Generate a business idea that relates with a career choice in plumbing 1.1 Conduct SWOT analysis 1.2 Identify the different products/services available in the market 1.3 Compare different products/services in Plumbing business 1.4 Determine the profile potential customers 1.5 Determine the profile potential competitors 1.6 Generate potential business idea based on the SWOT analysis	TLE_EM7/8-00-1
LESSON 1: PREPARE PLUMBING MATERIALS AND TOOLS (UT)				
1. Plumbing materials and tools 2. Requisition of materials and tools 3. Procedure in receiving materials and tools	The learner demonstrates an understanding of concepts in the preparation of plumbing materials and tools using the different forms in electrical installation and maintenance.	The learner independently prepares appropriate plumbing materials and tools using the different forms in electrical installation and maintenance based on industry standards.	LO 1. Prepare plumbing materials and tools for the task 1.1 Prepare a list of plumbing tools and materials for a specific job	TLE_IAPB7/8UT-0a-1
			LO 2. Request appropriate plumbing supplies, materials and tools applicable to a specific job 2.1 Use the appropriate form in requesting for plumbing tools, supplies and materials for a specific job	TLE_IAPB7/8UT-0a-2

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			LO 3. Receive and inspect electrical supplies, materials and tools 3.1 Check and control received items on the list	TLE_IAPB7/8UT-0b-3
LESSON 2: PERFORM MENSURATION AND CALCULATIONS (MC)				
1. Measurement 2. Proper handling of measuring instruments	The learner demonstrates an understanding of the concepts and underlying principles in performing measurements and calculations.	The learner independently performs accurate measurements and calculation based on given tasks.	LO 1. Select plumbing measuring tools and instruments 1.1 Identify object or component to be measured. 1.2 Choose measuring tools to be used for specific tasks 1.3 Identify alternative measuring tools without sacrificing cost and quality of work	TLE_IAPB7/8MC-0c-1
			LO 2. Carry out measurements and calculations 2.1 Use appropriate measuring devices for specific tasks 2.2 Compute for required data. 2.3 Convert data to its equivalent measure	TLE_IAPB7/8MC-0d-2

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
LESSON 3: INTERPRET TECHNICAL DRAWINGS AND PLANS (ID)				
1. Plumbing drawing signs and symbols 2. Technical plans and schematic diagrams	The learner demonstrates an understanding of the concepts and underlying principles in interpreting simple technical drawings and plans in plumbing installation and maintenance.	The learner independently reads and interprets specifications of simple technical drawings and plans.	LO 1. Analyze signs, plumbing symbols and data 1.1 Read and interpret plumbing signs, symbols and data 1.2 Analyze plumbing components and materials based on electrical signs, symbols and data	TLE_IAPB7/8ID-0e-1
			LO 2. Interpret technical drawings and plans 2.1 Read blueprints of plumbing plans, diagrams and circuits 2.2 Identify necessary tools, materials and equipment according to blueprints of plumbing plans, diagrams and circuits	TLE_IAPB7/8ID-0f-2
LESSON 4: MAINTAIN TOOLS AND EQUIPMENT (MT)				
1. Plumbing tools and equipment 2. Lubricants 3. Storage of plumbing tools	The learner demonstrates an understanding of the concepts and underlying principles in the maintenance of plumbing tools and equipment.	The learner independently performs proper maintenance of plumbing tools and equipment based on industry standards.	LO 1. Check condition of tools and equipment 1.1 Functional and non-functional tools are labeled	TLE_IAPB7/8MT-0g-1
			LO 2. Perform basic preventive maintenance 2.1 Maintenance of tools is done regularly	TLE_IAPB7/8MT-0g-2

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			LO 3. Store tools and equipment 3.1 Tools are stored safely in appropriate locations in accordance with manufacturer specifications or standard operating procedure	TLE_IAPB7/8MT-0h-3
LESSON 5: PRACTICE OCCUPATIONAL HEALTH AND SAFETY PROCEDURE (OS)				
1. Occupational health and safety procedures	The learner demonstrates an understanding of the concepts and underlying principles in occupational health and safety procedures	The learner independently identifies hazards correctly in accordance with occupational health and safety procedures.	LO 1. Identify hazards and risks 1.1 Observing safety work habits in the work place 1.2 Preventing hazards in the workplace	TLE_IAPB7/8OS-0i-1
			LO 2. Evaluate hazards and risks 2.1 Identify work hazards in the workplace 2.2 Make a plan of action for the identified hazards	TLE_IAPB7/8OS-0i-2
			LO 3. Control hazards and risks 3.1 Demonstrate the use of PPEs in the workplace 3.2 Enumerate the benefits of observing safety procedure in the workplace	TLE_IAPB7/8OS-0j-3

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INDUSTRIAL ARTS – PLUMBING
GRADE 9 (Specialization)**

Course Description:

This is an exploratory and introductory course which leads to leads to a **Plumbing** National Certificate I (NCI) It focuses on the core **competencies** that the **Grade 9** Technology and Livelihood Education (TLE) student ought to possess: (1) preparing pipes, tools and equipment for installation; and (2) cutting and threading ferrous pipes.

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<p>Introduction</p> <ol style="list-style-type: none"> 1. Basic procedure in plumbing 2. Relevance of the course 3. Career opportunities 	<p>The learner demonstrates an understanding of the basic concepts and underlying theories in plumbing.</p>	<p>The learner independently demonstrates the core competencies in plumbing.</p>	<ol style="list-style-type: none"> 1. Explain basic concepts in plumbing 2. Discuss the relevance of the course 3. Explore career opportunities in plumbing 	
PERSONAL ENTREPRENEURIAL COMPETENCIES (PECS)				
<ol style="list-style-type: none"> 1. Assessment of Personal Competencies and Skills (PeCS) vis-à-vis a practicing entrepreneur/employee in locality/town. <ol style="list-style-type: none"> 1.1 Characteristics 1.2 Attributes 1.3 Lifestyle 1.4 Skills 1.5 Traits 2. Analysis of PeCS in relation to a practitioner 3. Align, strengthen and develop ones PeCS based on the results 	<p>The learner demonstrates an understanding of one's Personal Competencies and Skills (PeCS) in plumbing.</p>	<p>The learner recognizes his/her Personal Entrepreneurial Competencies and Skills (PeCS) and prepares an activity plan that aligns with that of a practitioner/entrepreneur in plumbing.</p>	<p>LO 1. Recognize Personal Entrepreneurial Competencies and Skills (PeCS) needed in plumbing</p> <ol style="list-style-type: none"> 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 	TLE_PPCS9-I0-1

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
ENVIRONMENT AND MARKET (EM)				
Market (Town) 1. Key concepts of Environment and Market 2. Players in the Market (Competitors) 3. Products & services available in the market	The learner demonstrates an understanding of the concepts environment and market in the field of plumbing, particularly in one's town/municipality.	The learner independently creates a business vicinity map reflective of the potential plumbing market within the locality/town.	LO 1. Recognize and understand the market in Plumbing 1.1 Identify the players/ competitors within the town 1.2 Identify the different products/services available in the market	TLE_EM9-I0-1
Market (Customer) 4. Key concepts in Identifying and Understanding the Consumer 5. Consumer Analysis through: 5.1 Observation 5.2 Interviews 5.3 Focus group discussion (FGD) 5.4 Survey			LO 2. Recognize the potential customer/market in Plumbing 2.1 Identify the profile of potential customers 2.2 Identify the customer's needs and wants through consumer analysis 2.3 Conduct consumer/market analysis	TLE_EM9-II0-2
6. Generating Business Idea 1.1 Key concepts in Generating Business Ideas 1.2 Knowledge & Skills, Passions, Interests 1.3 New application 1.4 Irritants 1.5 Striking ideas (new concept) 1.6 Serendipity Walk			LO 3. Create new business ideas in Plumbing. business by using various techniques 3.1 Explore ways of generating business idea from ones' own characteristics/attributes 3.2 Generate business ideas using product innovation from irritants, trends and emerging needs 3.3 Generate business ideas using Serendipity Walk	TLE_EM9-III0-IV0-3

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
PREPARING PIPES, TOOLS AND EQUIPMENT FOR INSTALLATION (PI)				
1. Plumbing signs and symbols 2. Types of measuring tools in plumbing	The learner demonstrates an understanding of the basic concepts and underlying theories in plumbing materials tools and equipment.	The learner independently demonstrates competency in the preparation of tools and equipment and pipes needed for installation.	LO 1. Lay out work area for pipes installation 1.1 Read plans and details in accordance with job requirement 1.2 Interpret plans and details in accordance with job requirement 1.3 Layout and mark dimensions 1.4 Use appropriate measuring tools for laying out 1.5 Determine face to face distance according to the allowed engagement length	TLE_IAPB9PI-Ia-j-1
3. Different pipe sizes and materials 4. Different cutting tools and equipment 5. Procedure in cutting pipes 6. Safety standards			LO 2. Cut pipe according to the required length of job requirements 2.1 Cut pipes accurately with tolerance based on the job requirements 2.2 Ream cut pipes as per standard procedure. 2.3 Observe correct use of cutting tools and equipment 2.4 Use Personal Protective Equipment (PPE) according to the job requirement 2.5 Perform proper housekeeping (5S)	TLE_IAPB9PI-IIa-j-2

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
7. Different threading tools 8. Standard procedures for pipe threading 9. Proper housekeeping (5S) in housekeeping			LO 3. Thread pipes in accordance with the standard thread engagement 3.1 Use threading tools and equipment 3.2 Perform pipe threading in accordance with the standard procedure 3.3 Use Personal Protective Equipment 3.4 Perform proper housekeeping	TLE_IAPB9PI-IIa-j-3
MAKE PIPING JOINTS AND CONNECTION (MP)				
1. Blueprint 2. Levelness alignment 3. Personal Protective Equipment (PPE)/safety precaution 4. Proper housekeeping (5S) implementation 5. Procedure in fitting PVC pipes 6. Proper use of hand tools 7. Types and uses of pipe joints and fittings			LO 1. Fit up joint and fitting for Polyvinyl Chloride (PVC) pipe 1.1 Check measurements according to plan 1.2 Select joints and fittings based on the job requirement 1.3 Perform pipe fitting based on job specification 1.4 Use Personal Protective Equipment 1.5 Perform proper housekeeping	TLE_IAPB9MP-IIIa-e-1
8. Blueprint reading 9. Materials use and specifications 10. Proper use of hand tools			LO 2. Perform pipe threading of joints and connection 2.1 Prepare piping layout based on blueprint 2.2 Perform threaded connections in accordance with the piping table of specifications and the approved	TLE_IAPB9MP-III f-j-2

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

<p>11. Procedure in fitting threaded pipe 12. Types of piping connection</p>			<p>standard procedure 2.3 Seal all joints with Teflon tape as per job specification 2.4 Use PPE 2.5 Perform proper housekeeping</p>	
<p>13. Caulking procedures 14. Types of caulking tools and materials 15. Proper use of plumbing hand tools 16. Economic use of materials 17. Proper housekeeping (5S) implementation</p>			<p>LO 3. Caulk joints 3.1 Pack joints firmly in accordance with the job requirement 3.2 Caulk lead or epoxy inside and outside the edge of the joint 3.3 Caulk pipe joints according to the specified procedure 3.4 Join hub and pipes according to the caulking procedure 3.5 Use PPE 3.6 Perform proper housekeeping</p>	<p>TLE_IAPB9MP-IVa-j-3</p>

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INDUSTRIAL ARTS – PLUMBING
GRADE 10 (Specialization)**

Course Description:

Prerequisite: Grade 9 Plumbing

This is an exploratory and introductory course which leads to a **Plumbing** National Certificate I (NCI) It focuses on the core competencies that the **Grade 10** Technology and Livelihood Education (TLE) student ought to possess: (1) performing minor construction works, and (2) making piping joints and connections.

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<p>Introduction</p> <ol style="list-style-type: none"> 1. Basic procedure in plumbing 2. Relevance of the course 3. Career opportunities 	<p>The learner demonstrates an understanding of the basic concepts and underlying theories in plumbing.</p>	<p>The learner independently demonstrates the core competencies in plumbing.</p>	<ol style="list-style-type: none"> 1. Explain basic concepts in plumbing 2. Discuss the relevance of the course 3. Explore career opportunities in plumbing 	
PERSONAL ENTREPRENEURIAL COMPETENCIES (PeCS)				
<ol style="list-style-type: none"> 1. Assessment of Personal Competencies and Skills (PeCS) vis-à-vis 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 PeCS in relation to a practitioner 3. Strengthening and further development of one's PeCS 	<p>The learner demonstrates an understanding of one's Personal Competencies and Skills (PeCS) in plumbing.</p>	<p>The learner independently creates a plan of action that strengthens/ further develops one's PeCS in plumbing.</p>	<p>LO 1. Develop and strengthen personal competencies and skills (PeCS) needed plumbing</p> <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_PECS10-I0-1

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
ENVIRONMENT AND MARKET (EM)				
1. Product Development 2. Key concepts in developing a product 3. Finding Value 4. Innovation 4.1 Unique Selling 4.2 Proposition (USP)	The learner demonstrates an understanding of the concepts <i>environment</i> and <i>market</i> in the field of plumbing, particularly in one's town/municipality.	The learner independently creates a business vicinity map reflective of the potential Plumbing market within the locality/town.	LO 1. Develop a product/ service in Plumbing 1.1 Identify what is of "Value" to the customer 1.2 Identify the customer 1.3 Explain what makes a product unique and competitive 1.4 Apply creativity and Innovative techniques to develop marketable product 1.5 Employ a Unique Selling Proposition (USP) to the product/service	TLE_EM10-I0-II0-1
5. Selecting a Business Idea 6. Key concepts in Selecting a Business Idea a. Criteria b. Techniques			LO 2. Select a business idea based on the criteria and techniques set 2.1 Enumerate various criteria and steps in selecting a business idea 2.2 Apply the criteria/steps in selecting a viable business idea 2.3 Determine a business idea based on the criteria/techniques set	TLE_EM10-III0-2
7. Branding			LO 3. Develop a brand for the product 3.1 Identify the benefits of having a good brand 3.2 Enumerate recognizable brands in the town/province 3.3 Enumerate the criteria for developing a brand 3.4 Generate a clear appealing product brand	TLE_EM10-IV0-3

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

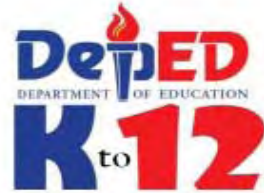
CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
PERFORMING MINOR CONSTRUCTION WORKS (CW)				
1. Mensuration and blue print reading 2. Roughing-in procedures 3. Steps in performing minor installation 4. Use and specification of materials 5. Tools and equipment for roughing-in 6. Masonry work and procedures			LO 1. Perform piping layouts 1.1 Interpret work instruction according to the job requirements 1.2 Select materials, tools, and equipment according to the job requirements 1.3 3.Perform laying out in accordance with roughing-in procedure 1.4 Check dimension and alignment of pipes based on the job specifications	TLE_IAPB10CW-Ia-IIj-1
7. Types of tools for cutting G.I. pipes 8. Procedure in cutting pipes through walls and floors 9. Safety regulations			LO 2. Cut pipes thru walls and floors 2.1 Cut thru walls in accordance with the job requirement 2.2 Use correct tools according to the job requirement 2.3 Restore cut wall and floor surface to their original condition 2.4 Use Personal Protective Equipment 2.5 Perform proper housekeeping	TLE_IAPB10CW-IIIa-IVj-2

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
GLOSSARY**

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INDUSTRIAL ARTS – PLUMBING
Code Book Legend**

Sample: TLE_IAPB7/8OS-0i-1

LEGEND		SAMPLE		DOMAIN/ COMPONENT	CODE
First Entry	Learning Area and Strand/ Subject or Specialization	Technology and Livelihood Education_Industrial Arts Plumbing	TLE_IA PB 7/8	Personal Entrepreneurial Skills	PECS
	Grade Level	Grade 7/8		Environment and Marketing	EM
Uppercase Letter/s	Domain/Content/ Component/ Topic	Practice Health and Safety Procedure	OS	Prepare Plumbing Materials and Tools	UT
				Perform Mensuration and Calculations	MC
			-	Interpret Technical Drawings and Plans	ID
Roman Numeral <i>*Zero if no specific quarter</i>	Quarter	No Specific Quarter	0	Maintain Tools and Equipment	MT
Lowercase Letter/s <i>*Put a hyphen (-) in between letters to indicate more than a specific week</i>	Week	Week Nine	i	Practice Occupational Health and Safety Procedure	OS
			-	Preparing Pipes, Tools and Equipment for Installation	PI
Arabic Number	Competency	Identify Hazards and Risks	1	Make Piping Joints and Connection	MP
				Performing Minor Construction Works	CW
				Perform Single Unit Plumbing Installation and Assemblies	PI
				Perform Plumbing Repair and Maintenance Works	PR
				Performing Pipe Leak Testing	LT



Refrigeration and Airconditioning

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INDUSTRIAL ARTS – RAC SERVICING (DOMRAC)
Grade 7/ 8 (Exploratory)**

Course Description:

This is an exploratory and introductory course which leads to **RAC Servicing** National Certificate Level II (NC II). It covers **five** common competencies that a **Grade 7/Grade 8** Technology and Livelihood Education (TLE) student ought to possess: (1) using tools, equipment and paraphernalia; (2) performing mensuration and calculation; (3) practicing Occupational Health and Safety (OHS) procedures; (4) maintaining tools, equipment and paraphernalia; and (5) interpreting technical drawing and plans.

The preliminaries of this exploratory 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
<p>Introduction</p> <ol style="list-style-type: none"> 1. Basic concepts in RAC Servicing 2. Relevance of the course 3. Career opportunities 	The learner demonstrates an understanding of the basic concepts and underlying theories in RAC servicing.	The learner independently demonstrates common competencies in RAC servicing as prescribed by TESDA Training Regulations..	<ol style="list-style-type: none"> 1. Explain basic concepts in RAC servicing 2. Discuss the relevance of the course 3. Explore on opportunities for RAC servicing as a career 	
PERSONAL ENTREPRENEURIAL COMPETENCIES (PeCS)				
<ol style="list-style-type: none"> 1. Assessment of Personal Entrepreneurial Competencies and Skills (PeCS) vis-à-vis a practicing entrepreneur/employee <ol style="list-style-type: none"> 1.1 Characteristics 1.2 Attributes 1.3 Lifestyle 1.4 Skills 1.5 Traits 2. Analysis of one's PeCS 	The learner demonstrates an understanding of one's Personal Entrepreneurial Competencies and Skills (PeCS).	The learner recognizes his/her Personal Entrepreneurial Competencies and Skills (PeCS) and prepares a list of PeCS of a practitioner/entrepreneur in RAC.	<p>LO 1. Recognize Personal Entrepreneurial Competencies and Skills (PeCS) needed in RAC</p> <ol style="list-style-type: none"> 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 PeCS with that of a practitioner /entrepreneur 	TLE_PECS7/8-00-1
ENVIRONMENT AND MARKET (EM)				
<ol style="list-style-type: none"> 1. Key concepts of Environment and Market 2. Products & services 	The learner demonstrates an understanding of the concepts environment and	The learner independently generates a business idea based on the analysis of environment	<p>LO 1. Generate a business idea that relates with a career choice in RAC</p> <ol style="list-style-type: none"> 1.1 Conduct SWOT analysis 	TLE_EM7/8-00-1

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<p>available in the market</p> <p>3. Differentiation of products and services</p> <p>4. Customers and their buying habits</p> <p>5. Competition in the market</p> <p>6. SWOT Analysis</p>	<p>market that relates to a career choice in RAC.</p>	<p>and market in RAC.</p>	<p>1.2 Identify the different products/services available in the market</p> <p>1.3 Compare different products/services in RAC business</p> <p>1.4 Determine the profile potential customers</p> <p>1.5 Determine the profile potential competitors</p> <p>1.6 Generate potential business idea based on the SWOT analysis</p>	
LESSON 1: PREPARE MATERIALS AND TOOLS (UT)				
<p>1. Tools and materials for RAC Servicing</p>	<p>The learner demonstrates an understanding of the concepts in the preparation of RAC materials and tools using the different forms in RAC.</p>	<p>The learner independently prepares appropriate RAC materials and tools using the different forms in RAC based on industry standards.</p>	<p>LO 1. Prepare RAC materials and tools for the task</p> <p>1.1 Prepare a list of electrical tools and materials for a specific job</p>	<p>TLE_IARA7/8UT-0a-1</p>
			<p>LO 2. Request appropriate RAC supplies, materials and tools applicable to a specific job</p> <p>2.1 Use the appropriate form in requesting for electrical tools, supplies and materials for a specific job</p>	<p>TLE_IARA7/8UT-0a-2</p>
			<p>LO 3. Receive and inspect RAC supplies, materials and tools</p> <p>3.1 Check and inspect received items on the list</p>	<p>TLE_IARA7/8UT-0b-3</p>

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
LESSON 2: PERFORM MENSURATION AND CALCULATION (MC)				
1. Measuring instrument 2. Measurement and calculation 3. Unit Conversion 4. System of measurement 4.1 English 4.2 Metric	The learner demonstrates an understanding of the concepts and underlying principles in performing measurements and calculations.	The learner independently performs accurate measurements and calculation based on given tasks.	LO 1. Select electrical measuring tools and instruments 1.1 Identify object or component to be measured 1.2 Choose measuring tools to be used for specific tasks 1.3 Identify alternative measuring tools without sacrificing cost and quality of work	TLE_IARA7/8MC-0c-1
			LO 2. Carry out measurements and calculations 2.1. Use appropriate measuring devices for specific tasks 2.2. Compute for required data 2.3. Convert data to its equivalent measure	TLE_IARA7/8MC0-d-2
LESSON 3: INTERPRET TECHNICAL DRAWINGS AND PLANS (ID)				
1. Sign, symbols and data 2. Interpret technical drawings and plans 3. Freehand sketching	The learner demonstrates an understanding of the concepts and underlying principles in interpreting simple technical drawings and plans in RAC.	The learner independently reads and interprets specifications of simple technical drawings and plans.	LO 1. Analyze signs, RAC symbols and data 1.1 Read and interpret RAC signs, symbols and data 1.2 Analyze RAC components and materials based on electrical signs, symbols and data	TLE_IARA7/8ID-0e-1
			LO 2. Interpret technical drawings and plans 2.1. Read blueprints of RAC plans, diagrams and circuits 2.2. Identify necessary tools, materials and equipment according to blueprints of RAC plans, diagrams and circuits	TLE_IARA7/8ID-0f-2

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
LESSON 4: MAINTAIN TOOLS AND EQUIPMENT (MT)				
1. Checking tools and equipment 2. Maintenance of tools and equipment 2.1 Cleaning 2.2 Lubricating 2.3 Tightening 2.4 Simple tool repair 2.5 Hand sharpening 3. Storing tools and equipment	The learner demonstrates an understanding of the underlying principles in the maintenance of RAC tools and equipment.	The learner independently performs proper maintenance of RAC tools and equipment based on industry standards.	LO 1. Check condition of tools and equipment 1.1 Label functional and non-functional tools and equipment	TLE_IARA7/8MT-0g-1
			LO 2. Perform basic maintenance 2.1 Perform cleaning and lubricating of tools 2.2 Observe periodic preventive and maintenance of RAC tools and equipment 2.2.1 Sharpening 2.2.2 Oiling 2.2.3 Insulating	TLE_IARA7/8MT-0h-2
			LO 3. Store tools and equipments 3.1. Prepare inventory of tools and equipment 3.2. Store tools and equipment in their proper place	TLE_IARA7/8MT-0h-3
LESSON 5: PERFORM HOUSEKEEPING AND SAFETY PRACTICES FOR RAC SERVICING (OS)				
1. Proper house keeping 2. Hazards in the work area 2.1 Flammable materials 2.2 Running machinery/equipment 2.3 Toxic substances 2.4 Debris 2.5 Open flames 2.6 Loose objects/fixtures 2.7 Chemicals	The learner demonstrates an understanding of the concepts and underlying principles of occupational health and safety procedures.	The learner independently simulates occupational health and safety procedures.	LO 1. Identify hazards and risks 1.1 List down hazards and risks in the workplace	TLE_IARA7/8OS-0i-1
			LO 2. Control hazards and risks 2.1 Determine effects of hazards and risks 2.2 Evaluate hazards and risks 2.3 Follow procedure for controlling hazards and risks in the workplace	TLE_IARA7/8OS-0i-2

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
2.8 Electrical faults 2.9 Hot metals			LO 3. Practice OHSP	TLE_IARA7/8OS-0j-3

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INDUSTRIAL ARTS – RAC SERVICING (DOMRAC)
GRADE 9 (Specialization)**

Course Description:

This is a specialization course which leads to a **RAC Servicing** National Certificate Level I (NC I). It covers two (1) core competencies that the **Grade 9** Technology and Livelihood Education (TLE) student ought to possess: (1) domestic refrigeration and air-conditioning unit installation, and (2) service and maintenance of window- type air-conditioning / domestic refrigeration units.

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
<p>Introduction</p> <ol style="list-style-type: none"> 1. Basic principles of electricity and mechanical aspects of refrigeration unit 2. Relevance of the course 3. Career opportunities 	<p>The learner demonstrates an understanding of the basic principles of electricity and mechanical aspects of refrigeration and air conditioning unit.</p>	<p>The learner independently demonstrates core competencies in RAC servicing as prescribed by TESDA Training Regulations..</p>	<ol style="list-style-type: none"> 1. Explain basic principles of electrical and mechanical aspects of domestic refrigeration unit 2. Discuss the relevance of the course 3. Explore career opportunities in RAC servicing 	
PERSONAL ENTREPRENEURIAL COMPETENCIES (PeCS)				
<ol style="list-style-type: none"> 1. Assessment of Personal Competencies and Skills (PeCS) vis-à-vis a practicing entrepreneur/ employee in locality/town. <ol style="list-style-type: none"> 1.1 Characteristics 1.2 Attributes 1.3 Lifestyle 1.4 Skills 1.5 Traits 2. Analysis of PeCS in relation to a practitioner 3. Align, strengthen and develop ones PeCS based on the results 	<p>The learner demonstrates an understanding of one’s Personal Competencies and Skills (PeCS) in RAC.</p>	<p>The learner recognizes his/her Personal Entrepreneurial Competencies and Skills (PeCS) and prepares an activity plan that aligns with that of a practitioner/entrepreneur in RAC.</p>	<p>LO 1. Recognize Personal Entrepreneurial Competencies and Skills (PeCS) needed in RAC</p> <ol style="list-style-type: none"> 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 	TLE_PeCS9-I0-1

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
ENVIRONMENT AND MARKET (EM)				
Market (Town) 1. Key concepts of Market 2. Players in the Market (Competitors) 3. Products & services available in the market	The learner demonstrates an understanding of the concepts <i>environment</i> and <i>market</i> in RAC, particularly in one's town/municipality.	The learner independently creates a business vicinity map reflective of the potential RAC market within the locality/town.	LO 1. Recognize and understand the market in RAC 1.1 Identify the players/ competitors within the town 1.2 Identify the different products/services available in the market	TLE_EM9-IO-1
Market (Customer) 4. Key concepts in Identifying and Understanding the Consumer 5. Consumer Analysis through: 1.1 Observation 1.2 Interviews 1.3 Focus group discussion (FGD) 1.4 Survey			LO 2. Recognize the potential customer/market in RAC 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	TLE_EM9-II0-2
6. Generating Business Idea 6.1 Key concepts in Generating Business Ideas 6.2 Knowledge, Skills, Passions and Interests 6.3 New applications 6.4 Irritants 6.5 Striking ideas (new concept) 6.6 Serendipity Walk			LO 3. Create new business ideas in RAC business by using various techniques 3.1 Explore ways of generating business idea from ones' own characteristics/attributes 3.2 Generate business ideas using product innovation from irritants, trends and emerging needs 3.3 Generate business ideas using Serendipity Walk	TLE_EM9-III0-IV0-3

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
LESSON 1: INSTALL DOMESTIC REFRIGERATION AND AIR-CONDITIONING UNIT (60 hours) (IR)				
1. Dom RAC Installation Requirements 1.1 Air circulation/ventilation requirements 1.2 Drain disposal requirements 1.3 Power supply requirements 1.4 Structural and architectural requirement 1.5 Provision for serviceability 2. Tools equipment and materials needed in installing DomRAC 3. Survey Inspection Report	The learner demonstrates an understanding of the concepts, underlying theories and principles in installing domestic refrigeration and air-conditioning units.	The learner independently provides quality, competitive and profitable service in installing domestic refrigerator and air-conditioning units.	LO 1. Conduct survey for unit installation 1.1 Assess site conditions and installation according to the job requirements 1.2 Determine tools, equipment and materials needed for installation according to site conditions and site installation requirements 1.3 Record result of the survey on site condition and site installation	TLE_IARA9IR-Ia-c-1
4. Wires and cables used in electrical wiring 5. Classes of outlet/switch boxes used in electrical wiring (PEC) 6. Enclosure and their conditions for use 7. Types of devices used in electrical wiring 8. Identifying wall plugs and masonry bolts 9. Drilling into masonry using portable electrical drill 10. Marking out using spirit			LO 2. Install electrical circuit 2.1 Perform roughing-in activities according to appropriate provision in Philippine Electrical Code (PEC) 2.2 Select electrical cabling and wiring devices of correct load carrying capacity 2.3 Install electrical cabling and wiring devices in line with manufacturer's instructions 2.4 Install power wiring devices in accordance with the PEC 2.5 Test electrical circuit in accordance with PEC	TLE_IARA9IR-Id-IIj-2

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
level /water level 11. Use of electrical measuring instruments 12. Testing electrical circuits				
13. Refrigeration cycle 14. Aircon/Refrigerator components and accessories 15. Sealant and insulation 16. Fastening device 17. WAC installation procedure 18. Basic plumbing 18.1 Types of PVC drain pipes 18.2 Types of PVC fittings 19. Safety practices			LO 3. Install window type aircon 3.1 Prepare unit and equipment/components based on work procedures 3.2 Install bracket, hangers and frames in accordance with manufacturer's recommendation 3.3 Position and level unit in line with manufacturer's instructions 3.4 Install sealing materials to ensure an air tight seal around the unit following manufacturer's instructions 3.5 Install condensate drain according to manufacturer's recommendation 3.6 Employ safe manual handling techniques in line with enterprise OH&S procedures 3.7 Perform proper housekeeping (5S)	TLE_IARA9IR-IIIa-IVj-3

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INDUSTRIAL ARTS – RAC SERVICING (DOMRAC)
GRADE 10 (Specialization)**

Course Description:

Prerequisite: Grade 9 DOMRAC

This is a specialization course which leads to a **RAC Servicing** National Certificate Level I (NC I). It covers two (2) core competencies that the **Grade 10** Technology and Livelihood Education (TLE) student ought to possess: (1) domestic refrigeration and air-conditioning unit installation, and (2) service and maintenance of window- type air-conditioning / domestic refrigeration units

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
<p>Introduction</p> <ol style="list-style-type: none"> 1. Basic principles of electricity and mechanical aspects of refrigeration unit 2. Relevance of the course 3. Career opportunities 	<p>The learner demonstrates an understanding of the basic principles of electricity and mechanical aspects of refrigeration and air conditioning unit.</p>	<p>The learner independently demonstrates the core competencies in RAC servicing as prescribed by TESDA Training Regulations..</p>	<ol style="list-style-type: none"> 1. Explain basic principles of electrical and mechanical aspects of domestic refrigeration unit 2. Discuss the relevance of the course 3. Explore career opportunities in RAC servicing 	
PERSONAL ENTREPRENEURIAL COMPETENCIES (PeCS)				
<ol style="list-style-type: none"> 1. Assessment of Personal Competencies and Skills (PeCS) vis-à-vis 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 PeCS in relation to a practitioner 3. Strengthening and further development of one's PeCS 	<p>The learner demonstrates an understanding of one's Personal Competencies and Skills (PeCS) in RAC.</p>	<p>The learner independently creates a plan of action that strengthens/ further develops one's PeCS in RAC.</p>	<p>LO 1. Develop and strengthen personal competencies and skills (PeCS) needed RAC</p> <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_PECS10-I0-1

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
ENVIRONMENT AND MARKET (EM)				
1. Product Development 2. Key concepts in developing a product 3. Finding Value 4. Innovation 4.1 Unique Selling 4.2 Proposition (USP)	The learner demonstrates an understanding of the concepts environment and market in RAC, particularly in one's town/municipality.	The learner independently creates a business vicinity map reflective of the potential RAC market within the locality/town.	LO 1. Develop a product/ service in RAC 1.1 Identify what is of "Value" to the customer 1.2 Identify the customer 1.3 Explain what makes a product unique and competitive 1.4 Apply creative and innovative techniques to develop a marketable product 1.5 Employ a Unique Selling Proposition (USP) to the product/service	TLE_EM10-IO-II0-1
1. Selecting a Business Idea 2. Key concepts of Selecting a Business Idea 2.1 Criteria 2.2 Techniques			LO 2. Select a business idea based on the criteria and techniques set 2.1. Enumerate various criteria and steps in selecting a business idea 2.2. Apply the criteria/steps in selecting a viable business idea 2.3. Determine a business idea based on the criteria/techniques set	TLE_EM10-III0-2
7. Branding			LO 3. Develop a brand for the product 3.1 Identify the benefits of having a good brand 3.2 Enumerate recognizable brands in the town/province 3.3 Enumerate the criteria for developing a brand 3.4 Generate a clear appealing product brand	TLE_EM10-IV0-3

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
INSTALL DOMESTIC REFRIGERATION AND AIR-CONDITIONING UNIT (60 hours) (IR)				
1. Measuring air circulation and velocity 1.1 Velometer 1.2 anemometer 2. Temperature testing 2.1 Thermometer 3. Current and voltage measurement 3.1 Clamp ammeter			LO 1. Conduct performance test on the installation of window type aircon 1.1 Check voltage and current according to unit power requirements 1.2 Check air temperature and velocity based on unit specifications 1.3 Inspect sounds and vibration based on unit specifications 1.4 Prepare Installation, testing and commissioning (ITC) report	TLE_IARA10IR-Ia-IIj-4
SERVICE AND MAINTAIN WINDOW- TYPE AIR-CONDITIONING / DOMESTIC REFRIGERATION UNITS (60 hours) (SR)				
1. Types and classification of air filter used in WAC 2. Effects of restricted air flow in WAC 3. Cleaning and replacing air filters	The learner demonstrates an understanding of the principles in the servicing and maintenance of window type air-conditioning units.	The learner independently performs the servicing and maintenance of window type air-conditions based on the service manual.	LO 1. Clean and replace air filter 1.1 Remove air filter from the unit 1.2 Check air filter for damage or replacement 1.3 Clean air filter 1.4 Replace defective air filter in accordance with manufacturer's specification	TLE_IARA10SR-IIIa-j-1
4. Assembling and disassembling evaporator/condenser in WAC 5. Cleaning procedure using high pressure washer 6. Straightening of fins 7. Types and application of cleaning agent			LO 2. Service evaporator and condenser 2.1 Select tools in dismantling the evaporator / condensing unit as per standard operating procedures (SOPs) 2.2 Use high pressure washer in cleaning evaporator/ condensing coil based on standard operating procedure 2.3 Repair defective	TLE_IARA10SR-IVa-j-2

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<p>8. Effects of heavily dented, corroded coil fins in unit operation</p> <p>9. Preventive and corrective maintenance of WAC</p> <p>10. Safety practices</p> <p>11. Montreal protocol</p> <p>12. Ozone depletion substances (ODS)</p>			<p>evaporator/condenser coil fins</p> <p>2.4 Replace defective evaporator/condenser coil fins in accordance with manufacturer's specification</p> <p>2.5 Apply cleaning agent or non-corrosive chemical in cleaning and maintaining evaporator/ condensing coil, fins and other body accessories as per standard operating procedures (SOPs)</p>	

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
GLOSSARY**

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INDUSTRIAL ARTS – RAC SERVICING (DOMRAC)
Code Book Legend**

Sample: TLE_IARA10SR-IIIa-j-1

LEGEND		SAMPLE	
First Entry	Learning Area and Strand/ Subject or Specialization	Technology and Livelihood Education_Industrial Arts RAC Servicing	TLE_IA RA 10
	Grade Level	Grade 9	
Uppercase Letter/s	Domain/Content/ Component/ Topic	Service and Maintain Window-Type Air-Conditioning/ Domestic Refrigeration Units	SR
			-
Roman Numeral <i>*Zero if no specific quarter</i>	Quarter	Third Quarter	III
Lowercase Letter/s <i>*Put a hyphen (-) in between letters to indicate more than a specific week</i>	Week	Week One to Ten	a-j
			-
Arabic Number	Competency	Clean and Replace Air Filter	1

DOMAIN/ COMPONENT	CODE
Personal Entrepreneurial Competencies	PECS
Environment and Marketing	EM
Prepare Materials and Tools	UT
Perform Mensuration and Calculation	MC
Interpret Technical Drawings and Plans	ID
Maintain Tools and Equipment	MT
Perform Housekeeping and Safety Practices for RAC Servicing	OS
Install Domestic Refrigeration and Air-Conditioning Units	IR
Service and Maintain Window-Type Air-Conditioning/ Domestic Refrigeration Units	SR



Shielded Metal Arc Welding

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INDUSTRIAL ARTS – SHIELDED METAL ARC WELDING (SMAW)
Grade 7/ 8 (Exploratory)**

Course Description:

This is an exploratory and introductory course which leads to a **Shielded Metal Arc Welding** National Certificate Level II (NC II). It covers **four** common competencies that the **Grade 7/Grade 8** Technology and Livelihood Education (TLE) student ought to possess: (1) using tools, equipment and paraphernalia; (2) performing mensuration and calculation; (3) practicing Occupational Health and Safety (OHS) procedures; and (4) interpreting technical drawing and plans.

The preliminaries of this exploratory 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 1. Basic concepts in Shield Metal Arc Welding 2. Relevance of the course 3. Career opportunities	The learner demonstrates an understanding of the basic concepts, and underlying theories in shield metal arc welding.	The learner independently demonstrates the common competencies in shield metal arc welding as prescribed by TESDA Training Regulations..	1. Explain basic concepts in shield metal arc welding 2. Discuss the relevance of the course 3. Explore career opportunities in shield metal arc welding	
PERSONAL ENTREPRENEURIAL COMPETENCIES (PeCS)				
1. Assessment of Personal Entrepreneurial Competencies and Skills (PeCS) vis-à-vis a practicing entrepreneur/employee 1.1 Characteristics 1.2 Attributes 1.3 Lifestyle 1.4 Skills 1.5 Traits 2. Analysis of one’s PeCS	The learner demonstrates an understanding of one’s Personal Entrepreneurial Competencies and Skills (PeCS).	The learner recognizes his/her Personal Entrepreneurial Competencies and Skills (PeCS) and prepares a list of PeCS of a practitioner/entrepreneur in SMAW.	LO 1. Recognize Personal Entrepreneurial Competencies and Skills (PeCS) needed in SMAW 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 PeCS with that of a practitioner /entrepreneur	TLE_PECS7/8-00-1
ENVIRONMENT AND MARKET (EM)				
1. Key concepts of Environment and Market	The learner demonstrates an understanding of the	The learner independently generates a business idea based	LO 1. Generate a business idea that relates with a career choice in	TLE_EM7/8-00-1

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
2. Products & services available 3. in the market 4. Differentiation of products and 5. services 6. Customers and their buying habits 7. Competition in the market 8. SWOT Analysis	concepts <i>environment</i> and <i>market</i> that relate to a career choice in SMAW.	on the analyses of the environment and market in SMAW.	SMAW 1.1 Conduct SWOT analysis 1.2 Identify the different products/services available in the market 1.3 Compare different products/services in SMAW business 1.4 Determine the profile potential customers 1.5 Determine the profile potential competitors 1.6 Generate potential business idea based on the SWOT analysis	
LESSON 1: USE BASIC HAND TOOLS AND EQUIPMENT (UT)				
1. Welding hand tools and equipment 2. Maintenance of hand tools 2.1 Cleaning 2.2 Lubricating 2.3 Tightening 2.4 Simple tool repair 2.5 Hand sharpening 3. Storage of hand tools	The learner demonstrates an understanding of the preparation of SMAW materials and tools.	The learner independently prepares appropriate SMAW materials and tools based on industry standards.	LO 1. Identify and select materials and tools 1.1 Manipulate the tools and materials in a job/task	TLE_IAAW7/8UT-0a-1
			LO 2. Request appropriate materials and tools 2.1. Accomplish the different forms needed in making requests for materials and tools	TLE_IAAW7/8UT-0a-b-2
			LO 3. Receive and inspect materials and tools 3.1. Accomplish the different forms in receiving materials and tools	TLE_IAAW7/8UT-0c-3

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
LESSON 2: PERFORM MENSURATION AND CALCULATION (MC)				
1. Four fundamental operations 1.1 Subtraction 1.2 Addition 1.3 Multiplication 1.4 Division 2. Conversion of units 3. System of measurement 4. Ratio and proportion 5. Area and volume calculation	The learner demonstrates an understanding of concepts and underlying principles in performing measurements and calculations.	The learner independently performs accurate measurements and calculation based on given tasks.	LO 1. Select measuring instruments 1.1 Manipulate the measuring tool for a specified task	TLE_IAAW7/8MC-0d-1
			LO 2. Carry out measurements and calculations 2.1 Measure and calculate the dimensions of a specific object	TLE_IAAW7/8MC-0d-e-2
LESSON 3: APPLY SAFETY PRACTICES (OS)				
1. Occupational hazard and safety procedures 2. Sign & symbols 3. Occupational health and safety 4. Personal protective equipment (PPE) 5. Safe handling of tools, equipment and materials 6. First Aid	The learner demonstrates an understanding of the concepts and underlying principles in OHS procedures.	The learner independently identifies hazards correctly in accordance with OHS procedures.	LO 1. Identify hazards and risks 1.1 Observing safety work habits in the work place 1.2 Preventing hazards in the workplace	TLE_IAAW7/8OS-0f-1
			LO 2. Evaluate hazards and risks 2.1 Identify work hazards in the workplace 2.2 Make a plan of action for the identified hazards	TLE_IAAW7/8OS-0f-2
			LO 3. Control hazards and risks 3.1 Demonstrate the use of PPEs in the workplace 3.2 Enumerate the benefits of observing safety procedure in the workplace	TLE_IAAW7/8OS-0g-3

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
LESSON 4: MAINTAIN TOOLS AND EQUIPMENT (MT)				
1. Routine maintenance 1.1 Lubricating 1.2 Tightening 1.3 Simple tool repair 1.4 Hand tools sharpening 1.5 Cleaning 2. Proper storage of hand tools 3. Proper housekeeping (5S)	The learner demonstrates an understanding of concepts and underlying principles in the maintenance of SMAW tools and equipment.	The learner independently performs proper maintenance of SMAW tools and equipment based on industry standards.	LO 1. Check condition of tools and equipment 1.1 Functional and non-functional tools are labeled	TLE_IAAW7/8MT-0h-1
			LO 2. Perform basic preventive maintenance 2.1 Maintenance of tools is done regularly	TLE_IAAW7/8MT-0i-2
			LO 3. Store tools and equipment 3.1 Tools are stored safely in appropriate locations in accordance with manufacturer specifications or standard operating procedure	TLE_IAAW7/8MT-0i-3
LESSON 5: INTERPRET PLANS AND DRAWINGS (ID)				
1. Alphabet of lines	The learner demonstrates an understanding of the concepts and underlying principles in interpreting simple technical drawings in SMAW.	The learner independently reads and interprets simple technical drawings.	LO 1. Analyze signs, symbols and data 1.1 Determine appropriate welding materials based on technical drawings	TLE_IAAW7/8ID-0i-j-1
			LO 2. Interpret technical drawings 2.1. Necessary tool, materials and equipment are identified according to plans	TLE_IAAW7/8ID-0i-j-2

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INDUSTRIAL ARTS – (SHIELDED METAL ARC WELDING)
GRADE 9 (Specialization)**

Course Description:

This is a specialization course which leads to a **SMAW** Certificate Level I (NC I). It covers one (1) core competency that the Grade 9 Technology and Livelihood Education (TLE) student ought to possess,--namely, performing fillet welding on carbon steel plates.

The preliminary of this introduction which leads to specialization 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
<p>Introduction</p> <ol style="list-style-type: none"> 1. Basic principles of arc welding 2. Relevance of the course 3. Career opportunities 	The learner demonstrates an understanding of the basic principles of arc welding.	The learner independently demonstrates core competencies in introduction to SMAW prescribed by TESDA Training Regulations..	<ol style="list-style-type: none"> 1. Explain basic arc welding 2. Discuss the relevance of the course 3. Explore on opportunities for SMAW servicing as a career 	
PERSONAL ENTREPRENEURIAL COMPETENCIES (PeCS)				
<ol style="list-style-type: none"> 1. Assessment of Personal Competencies and Skills (PeCS) vis-à-vis a practicing entrepreneur/ employee in locality/town. <ol style="list-style-type: none"> 1.1 Characteristics 1.2 Attributes 1.3 Lifestyle 1.4 Skills 1.5 Traits 2. Analysis of PeCS 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 SMAW.	The learner recognizes his/her Personal Entrepreneurial Competencies and Skills (PeCS) and prepares an activity plan that aligns with that of a practitioner/entrepreneur in SMAW	<p>LO 1. Recognize Personal Entrepreneurial Competencies and Skills (PeCS) needed in SMAW</p> <ol style="list-style-type: none"> 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 	TLE_PECS9-I0-1

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
ENVIRONMENT AND MARKET (EM)				
Market (Town) 1. Key concepts of Environment and Market 2. Players in the Market (Competitors) 3. Products & services available in the market	The learner demonstrates an understanding of the concepts <i>environment</i> and <i>market</i> in SMAW, particularly in one's town/municipality.	The learner independently creates a business vicinity map reflective of the potential SMAW market within the locality/town.	LO 1. Recognize and understand the market in SMAW 1.1 Identify the players/ competitors within the town 1.2 Identify the different products/services available in the market	TLE_EM9-I0-1
Market (Customer) 4. Key concepts of Identifying and Understanding the Consumer 5. Consumer Analysis through: 5.1 Observation 5.2 Interviews 5.3 Focus group discussion (FGD) 5.4 Survey			LO 2. Recognize the potential customer/market in SMAW 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	TLE_EM9-II0-2
6. Generating Business Idea 6.1 Key concepts in Generating Business Ideas 6.2 Knowledge & Skills, Passions, Interests 6.3 new applications 6.4 Irritants 6.5 Striking ideas (new concept) 6.6 Serendipity Walk			LO 3. Create new business ideas in SMAW by using various techniques 3.1 Explore ways of generating business idea from ones' own characteristics/attributes 3.2 Generate business ideas using product innovation from irritants, trends and emerging needs 3.3 Generate business ideas using Serendipity Walk	TLE_EM9-III0-IV0-3

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
PREPARE WELD MATERIALS (WM)				
1. Parts and function of cutting equipment 2. Procedures in setting-up cutting equipment 3. Procedures in checking the accuracy of cutting equipment 4. Occupational health and safety standards			LO 1. Set-up cutting equipment 1.1 Set-up cutting equipment in conformity with the occupational health and safety standards 1.2 Check cutting equipment fittings, connection, and power source in accordance with workplace procedure	TLE_IAAW9WM-Ia-b-1
5. Cutting operation procedures 6. Oxy-acetylene gas cutting equipment (manual and automatic) 7. Occupational health and safety standards			LO 2. Cut and prepare edge of materials 2.1 Cut materials according to specified dimensions/specifications 2.2 Prepare edge of materials according to specified dimensions/specifications	TLE_IAAW9WM-Ic-d-2
8. Procedures and techniques of preparing plates edges for welding 9. Equipment and tools for preparing plates edges 10. Occupational health and safety standards			LO 3. Clean surfaces and edges 3.1 Clean surfaces and edges based on the job requirements 3.2 Use correct tools and equipment for cleaning surfaces and edges in accordance with the job requirements 3.3 Use appropriate Personal Protective Equipment (PPE) 3.4 Perform proper housekeeping (5S)	TLE_IAAW9WM-Ie-3
11. Maintenance of electrode/welding rods			LO 4. Prepare welding consumables	TLE_IAAW9WM-If-4

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
12. Occupational health and safety standards 13. Electrodes specification and its characteristics 14. Consumable gases			4.1 Identify welding electrodes according to classification and specifications 4.2 Maintain and keep electrodes in electrode oven based on prescribed temperature 4.3 Prepare specified consumable gases based on job requirements 4.4 Select correct materials in accordance with job requirements	
15. Procedures and techniques in checking protective equipment 16. Safe working practices and handling of protective equipment 17. Occupational health and safety procedures			LO 5. Prepare welding protective equipment 5.1 Prepare PPE in accordance with occupational health and safety standards 5.2 Check welding protective equipment in accordance with safety procedures	TLE_IAAW9WM-Ig-5
SET-UP WELDING EQUIPMENT (SW)				
1. Parts and functions of Shielded Metal Arc Welding (SMAW) 2. Procedures in setting-up of welding machine 3. Types of welding power source 4. AC power source 5. DC power source 6. AC+DC power source			LO 1. Set-up welding machine based on manufacturer's manual 1.1 Identify welding machine parts 1.2 Perform proper setting of welding machine according to manufacturer's manual	TLE_IAAW9SW-Ih-1
7. Functions of welding cables			LO 2. Set-up welding accessories 2.1 Identify welding cables/wires and	TLE_IAAW9SW-Ii-2

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
8. Procedure in setting up of welding cables/accessories			other accessories based on functions and uses 2.2 Perform setting/connecting of cables and other accessories in accordance with manufacturer's manual	
9. Types of welding positioners, jigs, and fixtures 10. Different kinds of jigs and fixtures 11. Uses and function of welding positioners, jigs, and fixtures 12. Strategic weld locations and places			LO 3. Set-up welding positioners, jigs and fixtures 3.1 Identify welding positioner, jigs and fixtures according to job requirements 3.2 Determine the location for setting up the welding positioner, jigs and fixtures 3.3 Set-up welding positioner, jigs and fixtures in conformity with job requirement 3.4 Observe safety practices in setting up welding positioner, jigs and fixtures	TLE_IAAW9SW-Ij-3
LAY OUT BEADS ON CARBON STEEL PLATES (LB)				
1. Procedure in striking an arc 2. Methods of striking an arc 3. Appropriate electrode specification			LO 1. Strike an arc 1.1 Identify the methods of striking an arc 1.2 Apply the process of striking an arc according to welding procedures and standard	TLE_IAAW9LB-IIa-e-1
4. Essentials of welding 5. International welding codes and standards 6. Acceptable weld profiles			LO 2. Deposit straight beads 2.1 Perform stringer or straight beads in accordance with welding standards	TLE_IAAW9LB-IIf-j-2

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
7. Weld defects, causes, and remedies 8. Welding Procedure Specifications (WPS) 9. Welding techniques and procedure 10. Safe welding practices			2.2 Check uniformity of bead ripples in accordance with welding standards 2.3 Perform finished weldment based on acceptable standards for: 2.3.1 spatters 2.3.2 slag 2.3.3 uniformity of beads 2.4 Use appropriate Personal Protective Equipment (PPE) 2.5 Perform proper housekeeping (5S)	
FIT UP WELD MATERIALS (FW)				
1. Kinds of tacking 2. Welding procedure standard requirement 3. Codes and specification			LO 1. Perform tack welding 1.1 Prepare metals for tacking based on acceptable welding requirements 1.2 Perform tack welding in accordance with the welding procedures 1.3 Use appropriate Personal Protective Equipment (PPE) 1.4 Perform proper housekeeping (5S)	TLE_IAAW9FW-IIIa-1
4. Essentials of welding 5. International welding codes and standards 6. Acceptable weld profiles 7. Weld defects, causes and remedies 8. Welding Procedure Specifications (WPS) 9. Welding techniques and procedure 10. Safe welding practices			LO 2. Weld butt joint (close) in flat and horizontal position 2.1 Perform stringer beads in accordance with welding standard 2.2 Check uniformity of bead ripples in accordance with welding standards 2.3 Perform inspection on the finished weldment based on acceptable standard 2.4 Use appropriate Personal Protective Equipment (PPE) 2.5 Perform proper housekeeping (5S)	TLE_IAAW9FW-IIIb-f-2

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
11. Essentials of welding 12. International welding codes and standards 13. Acceptable weld profiles 14. Weld defects, causes and remedies 15. Welding Procedure Specifications (WPS) 16. Welding techniques and procedure 17. Safe welding practices			LO 3. Weld butt joint (open) in flat and horizontal position 3.1 Perform weldment in accordance with welding standards for: 3.1.1 Spatters 3.1.2 Slag 3.1.3 Uniformity of beads 3.2 Deposit stringer or layered beads in accordance with welding standards 3.3 Check uniformity of bead ripples in accordance with welding standards 3.4 Perform inspection on the finished weldment based on acceptable standard 3.5 Use appropriate Personal Protective Equipment (PPE) 3.6 Perform proper housekeeping (5S)	TLE_IAAW9FW-IIIg-j-3
REPAIR WELDS (RW)				
1. Types of welding defects 2. Procedure in locating weld defects 3. Weld defects identification			LO 1. Mark/locate weld defects 1.1 Identify the different welding defects, problems and remedies 1.2 Perform procedures in locating weld defects 1.3 Determine location of weld defects 1.4 Mark weld defects for repair in accordance with job requirements	TLE_IAAW9RW-IVa-1
4. Tools and equipment and their uses 5. Procedures in checking tools and equipment			LO 2. Prepare tools and equipment 2.1 Prepare welding tools, equipment and accessories 2.2 Check welding tools, equipment	TLE_IAAW9RW-IVb-2

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			and accessories based on manufacturers manual	
6. Dye- penetrant testing principle and applications 7. Procedures of dye penetrant testing 8. Weld defects removal and excavation			LO 3. Remove weld defects 3.1 Remove/excavate weld defects in accordance with welding procedure 3.2 Minimize removal of non-defective welds 3.3 Perform visual and dye-penetrant tests to verify the extent of the removal of defects	TLE_IAAW9RW-IVc-f-3
9. Rectifying weld defects 10. Re-welding procedures 11. Visual inspection of weld			LO 4. Perform re-welding. 4.1 Perform re-welding in accordance with repair 4.2 Visually check welding for re-welding acceptability 4.3 Avoid weld defects/damages during re-welding.	TLE_IAAW9RW-IVg-j-4

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INDUSTRIAL ARTS – (SHIELDED METAL ARC WELDING)
GRADE 10 (Specialization)**

Course Description:

Prerequisite: Grade 9 SMAW

This is a specialization course which leads to a **SMAW** Certificate Level I (NC I). It covers one (1) core competency that the Grade 9 Technology and Livelihood Education (TLE) student ought to possess, --namely, performing fillet welding on carbon steel plates.

The preliminary of this introduction which leads to specialization 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
<p>Introduction</p> <ol style="list-style-type: none"> 1. Basic principles of arc welding 2. Relevance of the course 3. Career opportunities 	<p>The learner demonstrates an understanding of the basic principles of arc welding.</p>	<p>The learner independently demonstrates the core competency in the introduction to SMAW as prescribed by TESDA Training Regulations.</p>	<ol style="list-style-type: none"> 1. Explain basic arc welding 2. Discuss the relevance of the course 3. Explore career opportunities in SMAW 	
PERSONAL ENTREPRENEURIAL COMPETENCIES (PeCS)				
<ol style="list-style-type: none"> 1. Assessment of Personal Competencies and Skills (PeCS) vis-à-vis 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 PeCS in relation to a practitioner 3. Strengthening and further development of one's PeCS 	<p>The learner demonstrates an understanding of one's Personal Competencies and Skills (PeCS) in SMAW.</p>	<p>The learner independently creates a plan of action that strengthens/ further develops one's PeCS in SMAW.</p>	<p>LO 1. Develop and strengthen personal competencies and skills (PeCS) needed SMAW</p> <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_PECS10-I0-8

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
ENVIRONMENT AND MARKET (EM)				
1. Product Development 2. Key concepts in developing a product 3. Finding Value 4. Innovation 4.1 Unique Selling 4.2 Proposition (USP)	The learner demonstrates an understanding of the concepts <i>environment</i> and <i>market</i> in SMAW, particularly in one's town/municipality.	The learner independently creates a business vicinity map reflective of the potential SMAW market within the locality/town.	LO 1. Develop a product/ service in SMAW 1.1 Identify what is of "Value" to the customer 1.2 Identify the customer 1.3 Explain what makes a product unique and competitive 1.4 Apply creative and innovative techniques to develop marketable product 1.5 Employ a Unique Selling Proposition (USP) to the product/service	TLE_EM10-I0-II0-1
5. Selecting a Business Idea 6. Key concepts in Selecting a Business Idea 6.1 Criteria 6.2 Techniques			LO 2. Select a business idea based on the criteria and techniques set 2.1 Enumerate various criteria and steps in selecting a business idea 2.2 Apply the criteria/steps in selecting a viable business idea 2.3 Determine a business idea based on the criteria/techniques set	TLE_EM10-III0-2
7. Branding			LO 3. Develop a brand for the product 3.1 Identify the benefits of having a good brand 3.2 Enumerate recognizable brands in the town/province 3.3 Enumerate the criteria for developing a brand 3.4 Generate a clear appealing product brand	TLE_EM10-IV0-3

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
PERFORM FILLET WELD ON CARBON STEEL PLATES (FC)				
<ol style="list-style-type: none"> 1. Essentials of welding 2. International welding codes and standards 3. Acceptable weld profiles 4. Weld defects, causes and remedies 5. Welding Procedure Specifications (WPS) 6. Welding techniques and procedures 7. Safe welding practices 			<p>LO 1. Weld carbon steel plates in flat position (1F)</p> <ol style="list-style-type: none"> 1.1 Perform stringer or layered beads in accordance with welding standards 1.2 Observe uniformity of bead ripples in accordance with welding standards 1.3 Observe weld capping/ final pass not exceeding allowable tolerances specified by welding codes/ standards on: <ol style="list-style-type: none"> 1.3.1 concavity 1.3.2 convexity 1.3.3 height of reinforcement 1.3.4 underfill 1.3.5 porosities 1.3.6 undercut 1.3.7 cracks 1.3.8 cold laps 1.4 Conducts visual inspection on the finished weldment in accordance with welding standards for <ol style="list-style-type: none"> 1.4.1 spatters 1.4.2 arc strikes 1.4.3 slag inclusion 1.4.4 uniformity of beads 1.5 Use appropriate Personal Protective Equipment (PPE) 1.6 Perform proper housekeeping (5S) 	<p>TLE_IAAW10FC-Ia-IIj-1</p>

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
8. Essentials of welding 9. International welding codes and standards 10. Acceptable weld profiles 11. Weld defects, causes and remedies 12. Welding Procedure Specifications (WPS) 13. Welding techniques and procedures 14. Safe welding practices			LO 2. Weld carbon steel plates in horizontal position (2F) 2.1 Perform stringer or layered beads in accordance with welding standards 2.2 Observe uniformity of bead, ripples in accordance with welding standards 2.3 Observe weld capping/ final pass not exceeding allowable tolerances specified by welding codes/ standards on: 2.3.1 concavity 2.3.2 convexity 2.3.3 height of reinforcement 2.3.4 underfill 2.3.5 porosities 2.3.6 undercut 2.3.7 cracks 2.3.8 cold laps 2.4 Conducts visual inspection on the finished weldment in accordance with welding standards for 2.4.1 spatters 2.4.2 arc strikes 2.4.3 slag inclusion 2.4.4 uniformity of beads 2.5 Use appropriate Personal Protective Equipment (PPE) 2.6 Perform proper housekeeping (5S)	TLE_IAAW10FC-IIIa-IVj-2

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
GLOSSARY**

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INDUSTRIAL ARTS – (SHIELDED METAL ARC WELDING)
Code Book Legend**

Sample: TLE_IAAW7/8MC-0d-1

LEGEND		SAMPLE	
First Entry	Learning Area and Strand/ Subject or Specialization	Technology and Livelihood Education_Industrial Arts Shielded Metal Arc Welding	TLE_IAAW7
	Grade Level	Grade 7	
Uppercase Letter/s	Domain/Content/Component/ Topic	Perform Estimation and Basic Calculation	MC
			-
Roman Numeral <i>*Zero if no specific quarter</i>	Quarter	No Specific Quarter	0
Lowercase Letter/s <i>*Put a hyphen (-) in between letters to indicate more than a specific week</i>	Week	Week Four	d
			-
Arabic Number	Competency	Select measuring instruments	1

DOMAIN/ COMPONENT	CODE
Personal Entrepreneurial Competencies	PECS
Environment and Marketing	EM
Use Basic Hand Tools and Equipment	UT
Perform Mensuration and Calculation	MC
Apply Safety Practices	OS
Maintain Tools and Equipment	MT
Interpret Plans and Drawings	ID
Prepare Weld Materials	WM
Set-up Welding Equipment	SW
Lay-out Beads on Carbon Steel Plates	LB
Fit-up Weld Materials	FW
Repair Welds	RW
Perform Fillet Weld on Carbon Plates	FC



Masonry

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INDUSTRIAL ARTS – MASONRY
Grade 7/ 8 (Exploratory)**

Course Description:

This is an exploratory and introductory course which leads to **Masonry** National Certificate Level II (NC II). It covers four common competencies that the **Grade 7/Grade 8** Technology and Livelihood Education (TLE) student should acquire: (1) using tools, equipment and paraphernalia, (2) performing mensuration and calculation; 3) practicing Occupational Health and Safety (OHS) procedures; and (4) interpreting technical drawing and plans.

The preliminaries of this exploratory 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 1. Basic concepts in Masonry 2. Relevance of the course 3. Career opportunities	The learner demonstrates an understanding of the basic concepts and underlying theories in Masonry	The learner independently demonstrates common competencies in masonry as prescribed by TESDA Training Regulations.	1. Explain basic concepts in masonry 2. Discuss the relevance of the course 3. Explore career opportunities in masonry	
PERSONAL ENTREPRENEURIAL COMPETENCIES (PeCS)				
1. Assessment of Personal Entrepreneurial Competencies and Skills (PeCS) vis-à-vis a practicing entrepreneur/employee 1.1 Characteristics 1.2 Attributes 1.3 Lifestyle 1.4 Skills 1.5 Traits 2. Analysis of one's PeCS	The learner demonstrates an understanding of one's Personal Entrepreneurial Competencies and Skills (PeCS).	The learner recognizes his/her Personal Entrepreneurial Competencies and Skills (PeCS) and prepares a list of PeCS of a practitioner/entrepreneur in masonry.	LO 1. Recognize Personal Entrepreneurial Competencies and Skills (PeCS) needed in masonry 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 PeCS with those of a practitioner /entrepreneur	TLE_ PECS7/8-00-1
ENVIRONMENT AND MARKET (EM)				
1. Key concepts of Environment and Market 2. Products & services available in the market 3. Differentiation of products and services	The learner demonstrates an understanding of the concepts environment and market and how they relate to a career choice in Masonry.	The learner independently generates a business idea based on the analysis of environment and market in Masonry.	LO 1. Generate a business idea that relates with a career choice in Masonry 1.1 Conduct SWOT analysis 1.2 Identify the different products/services available in the market 1.3 Compare different products/services in	TLE_EM7/8-00-1

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
4. Customers and their buying habits 5. Competition in the market 6. SWOT Analysis			Masonry business 1.4 Determine the profile potential customers 1.5 Determine the profile potential competitors 1.6 Generate potential business idea based on the SWOT analysis	
LESSON 1: PREPARE CONSTRUCTION MATERIALS AND TOOLS (UT)				
1. Masonry and materials 2. Job order and requisition slips 3. Materials management	The learner demonstrates an understanding of concepts in the preparation of materials and tools using the different forms in masonry.	The learner independently prepares appropriate masonry materials and tools using the different forms in tile setting based on industry standards.	LO 1. Prepare masonry materials and tools for the task 1.1 Prepare a list of masonry tools and materials for a specific job	TLE_IAMS7/8UT-0a-1
			LO 2. Request appropriate masonry supplies materials and tools applicable to a specific job 2.1 Use the appropriate form in requesting for masonry tools, supplies and materials for a specific job	TLE_IAMS7/8UT-0b-2
			LO 3. Receive and inspect masonry supplies, materials and tools 3.1. Check and inspect received items on the list	TLE_IAMS7/8UT-0b-3
LESSON 2: OBSERVE PROCEDURE, SPECIFICATIONS AND MANUALS OF INSTRUCTIONS (ID)				
1. Types of masonry works 2. Signs and symbols 3. Specifications in the work plan	The learner demonstrates an understanding of the concepts and underlying principles in interpreting simple technical drawings and plans in tile setting.	The learner independently reads and interprets specifications of simple technical drawings and plans.	LO 1. Analyze signs, masonry symbols and data 1.1 Read and interpret masonry signs, symbols and data 1.2 Analyze materials based on masonry signs, symbols and data	TLE_IAMS7/8ID-0c-1

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			<p>LO 2. Interpret technical drawings and plans 2.1 Read blueprints of masonry plans, diagrams and circuits 2.2 Identify necessary tools, materials and equipment according to blueprints of masonry plans, diagrams and circuits</p>	TLE_IAMS7/8ID-0d-2
LESSON 3: PERFORM MENSURATION AND CALCULATIONS (MC)				
<ol style="list-style-type: none"> 1. Visualizing objects and shapes specifically geometric shapes 2. Interpreting formulas for volume, areas, and perimeters of plane and geometric figures 3. Measuring Instruments/Measuring Tools 4. Proper handling of measuring instruments 	<p>The learner demonstrates an understanding of the concepts and underlying principles in performing measurements and calculations.</p>	<p>The learner independently performs accurate measurements and calculation based on given tasks.</p>	<p>LO 1. Select masonry measuring tools and instruments 1.1 Identify object or material to be measured 1.2 Choose measuring tools to be used for specific tasks 1.3 Identify alternative measuring tools without sacrificing cost and quality of work</p>	TLE_IAMS7/8MC-0e-1
			<p>LO 2. Carry out measurements and calculations 2.1 Use appropriate measuring devices for specific tasks 2.2 Compute for required data 2.3 Convert data to its equivalent measure</p>	TLE_IAMS7/8MC-0f-2

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
LESSON 4: MAINTAIN TOOLS AND EQUIPMENT (MT)				
1 Hazards and risks. 2 Safety Regulations. 3 5S	The learner demonstrates an understanding of the underlying principles in the maintenance of tile setting tools and equipment.	The learner independently performs proper maintenance of tile setting tools and equipment based on industry standards.	LO 1. Check condition of tools and equipment 1.1 Label functional and non-functional tools and equipment	TLE_IAMS7/8MT-0g-1
			LO 2. Perform basic maintenance 2.1 Perform cleaning and lubricating of tools 2.2 Observe periodic preventive and maintenance of tile setting tools and equipment 2.2.1 Sharpening 2.2.2 Oiling 2.2.3 Insulating	TLE_IAMS7/8MT-0g-2
			LO 3. Store tools and equipment 3.1. Prepare inventory of tools and equipment 3.2. Store tools and equipment in their proper places	TLE_IAMS7/8MT-0h-3
LESSON 5: PRACTICE OCCUPATIONAL HEALTH AND SAFETY PROCEDURE (OS)				
1. Philippine OHS standards of hazards in the workplace 2. Safety regulations 3. Operational health and safety procedures, practices and regulations	The learner demonstrates an understanding of the concepts and underlying principles of occupational health and safety procedures.	The learner independently simulates occupational health and safety procedures.	LO 1. Identify hazards and risks 1.1 List down hazards and risks in the workplace	TLE_IAMS7/8OS-0i-1
			LO 2. Control hazards and risks 2.1 Determine effects of hazards and risks 2.2 Evaluate hazards and risks 2.3 Follow procedure for controlling hazards and risks in the workplace	TLE_IAMS7/8OS-0h-i-2
			LO 3. Practice OHSP	TLE_IAMS7/8OS-0j-3

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TECHNOLOGY AND LIVELIHOOD EDUCATION
INDUSTRIAL ARTS – MASONRY
GRADE 9 (Specialization)**

Course Description:

This course is composed of the core competencies which lead to a **Masonry** National Certificate Level II (NCII). It covers performing basic masonry works and preparing masonry materials. This also covers the knowledge, skills and attitude required to perform basic masonry works and prepare masonry materials.

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<p>Introduction</p> <ol style="list-style-type: none"> 1. Basic concepts in masonry 2. Relevance of the course 3. Career opportunities 	<p>The learner demonstrates an understanding of the basic concepts and underlying theories in masonry.</p>	<p>The learner independently demonstrates core competencies in masonry as prescribed by TESDA Training Regulations.</p>	<ol style="list-style-type: none"> 1. Explain basic concepts in masonry 2. Discuss the relevance of the course 3. Explore career opportunities in masonry 	
PERSONAL ENTREPRENEURIAL COMPETENCIES (PECS)				
<ol style="list-style-type: none"> 1. Assessment of Personal Competencies and Skills (PeCS) vis-à-vis a practicing entrepreneur/employee in locality/town <ol style="list-style-type: none"> 1.1 Characteristics 1.2 Attributes 1.3 Lifestyle 1.4 Skills 1.5 Traits 2. Analysis of PeCS in relation to a practitioner 3. Align, strengthen and develop ones PeCS based on the results 	<p>The learner demonstrates an understanding of one’s Personal Competencies and Skills (PeCS) in Masonry.</p>	<p>The learner recognizes his/her Personal Entrepreneurial Competencies and Skills (PeCS) and prepares an activity plan that aligns with that of a practitioner/entrepreneur in Masonry.</p>	<p>LO 1. Recognize Personal Entrepreneurial Competencies and Skills (PeCS) needed in masonry</p> <ol style="list-style-type: none"> 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 	<p>TLE_PECS9-I0-1</p>

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
ENVIRONMENT AND MARKET (EM)				
Market (Town) 1. Key concepts of Market 2. Players in the Market (Competitors) 3. Products & services available in the market	The learner demonstrates an understanding of the concepts environment and market in the field of masonry, particularly in one's town/municipality.	The learner independently creates a business vicinity map reflective of the potential masonry market within the locality/town.	LO 1. Recognize and understand the market in Masonry 1.1 Identify the players/ competitors within the town 1.2 Identify the different products/services available in the market	TLE_EM9-I0-1
Market (Customer) 4. Key concepts in Identifying and Understanding the Consumer 5. Consumer Analysis through: 5.1 Observation 5.2 Interviews 5.3 Focus group discussion (FGD) 5.4 Survey			LO 2. Recognize the potential customer/market in Masonry 2.1 Identify profile of potential customers 2.2 Identify customer's needs and wants through consumer analysis 2.3 Conduct consumer/market analysis	TLE_EM9-II0-2
6. Generating Business Ideas 6.1 Key concepts in Generating Business Ideas 6.2 Knowledge, skills, passions and interests 6.3 new applications 6.4 Irritants 6.5 Striking ideas (new concept) 6.6 Serendipity Walk			LO 3. Create new business ideas in the masonry business by using various techniques 3.1 Explore ways of generating business idea from one's own characteristics/attributes 3.2 Generate business ideas using product innovation from irritants, trends and emerging needs 3.3 Generate business ideas using Serendipity Walk	TLE_EM9-III0-IV0-3

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
PREPARE MASONRY MATERIALS (MM)				
<ol style="list-style-type: none"> 1. Types of concrete blocks, bricks, cement and aggregates 2. Types of mixture 3. Types of masonry anchors, ties and reinforcements 4. Form works and platforms 5. Scaffoldings, construction elements and materials 6. Properties of masonry materials 7. Filling-up of forms 8. Mixture and proportion 9. types and uses of hauling tools, equipment and PPE 10. procedures in handling construction materials 11. storage of construction materials 	<p>The learner demonstrates an understanding of the underlying principles in preparing masonry materials.</p>	<p>The learner independently prepares masonry materials according to workplace practices.</p>	<p>LO 1. Select tools, equipment and materials needed in hauling and mixing</p> <ol style="list-style-type: none"> 1.1 Identify tools, materials and equipment used in hauling according to work requirements 1.2 Identify tools, materials and equipment used in mixing according to work requirements 1.3 Determine quantity and quality of material to be hauled according to the job requirement 1.4 Inspect materials to be used in accordance with the job requirement 	<p>TLE_IAMS9MM-Ia-h-1</p>
<ol style="list-style-type: none"> 12. Mixing proportions of concrete/mortar 13. Uses and proper handling of mixing tools and equipment 			<p>LO 2. Haul materials</p> <ol style="list-style-type: none"> 2.1 Check availability and serviceability of hauling equipment 2.2 Haul construction materials 2.3 Stockpile required construction materials based on standard operating procedure 2.4 Observe safe handling of construction materials 2.5 Use appropriate PPE 	<p>TLE_IAMS9MM-Ii-IIb-2</p>
			<p>LO 3. Mix mortar/concrete</p> <ol style="list-style-type: none"> 3.1 Check mixing tools and equipment 3.2 Determine quantity of construction aggregates 3.3 Mix mortar/concrete based on proportion and consistency 3.4 Observe the proper procedure in mixing mortar/concrete 	<p>TLE_IAMS9MM-Iic-j-3</p>

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
PERFORM BASIC MASONRY WORKS (MW)				
<ol style="list-style-type: none"> 1. Classification of masonry anchors, ties and reinforcements, 2. Fabrication procedures of reinforcement bars 3. Properties of metal 4. Corrosion 5. Composition of metals 6. Thermal expansion of materials 7. Basic operations 8. Linear measurements 9. Conversion of units 10. Angles 11. Fractions 12. Decimals 13. Following oral and written instructions 	<p>The learner demonstrates an understanding of the concepts and underlying principles in performing basic masonry works.</p>	<p>The learner independently performs basic masonry works based on job description.</p>	<p>LO 1. Perform re-bar fabrication and installation</p> <ol style="list-style-type: none"> 1.1 Identify steel bars to be used in re-bar fabrication and installation 1.2 Measure steel bar according to given task 1.3 Cut and bend steel bars according to given task 1.4 Fabricate re-bar based on job requirement 1.5 Install fabricated re-bars based on job requirement 1.6 Observe safety precautions 	<p>TLE_IAMS9MW-IIIa-d-1</p>
<ol style="list-style-type: none"> 14. Components of steel/wooden scaffoldings 15. Advantages and disadvantages of steel/wooden scaffoldings 16. Procedures in erecting and dismantling scaffoldings 17. Scaffolding safety practices 18. Safekeeping of scaffoldings 19. Characteristics of steel and lumber 20. Equilibrium of forces 			<p>LO 2. Erect and dismantle scaffoldings (1.8 m and below)</p> <ol style="list-style-type: none"> 2.1 Check components of scaffolding based on job requirement 2.2 Erect scaffolding based on job requirements 2.3 Dismantle scaffolding in accordance with safety practices 2.4 Stockpile components of scaffolding. 2.5 Observe safety precaution 2.6 Use appropriate PPE 	<p>TLE_IAMS9MW-IIIE-h-2</p>

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
21. Linear measurements 22. Mensuration 23. Conversion of units 24. Fractions 25. Receiving and responding to workplace communication 26. Preparing inventory reports 27. Types, parts, shape and uses of formworks 28. Proper stockpiling of formworks 29. Formwork fabrication procedures 30. Techniques in installing formworks 31. Procedures in stripping formworks 32. Formworks preservation 33. Properties of metal 34. Corrosion 35. Composition of metals 36. Basic operations 37. Linear measurements 38. Conversion of units 39. Fractions and decimal 40. Following oral and written instructions			LO 3. Perform fabrication, installation and stripping of formworks 3.1 Identify fabrication and installation of formworks materials 3.2 Measure formworks materials 3.3 Cut materials according to specified requirement 3.4 Perform fabrication of materials into forms or stiffener columns and lintel beams 3.5 Install formworks 3.6 Observe safety precaution 3.7 Use appropriate PPE	TLE_IAMS9MW-IIIi-j-3

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
41. Procedures in excavating and backfilling 42. Types of soil 43. Excavation tools and their uses 44. Types of filling materials 45. Characteristics of soil 46. Types and composition of soil 47. Layers of soil 48. Linear measurements 49. Mensuration 50. Reading scales 51. Receiving and responding to workplace communication 52. Slump test requirements 53. Concrete pouring procedure 54. Curing of concrete and mortar 55. Breaking strength 56. Properties of concrete 57. Thermal expansion of			LO 4. Perform excavation and basic filling/compaction 4.1 Prepare area for excavation according to the job requirement 4.2 Perform excavation according to the required width and depth 4.3 Perform backfilling and compaction after concreting of wall footing and blocks installed up to ground level 4.4 Observe safety precaution 4.5 Use appropriate PPE	TLE_IAMS9MW-IVa-d-4
			LO 5. Perform concreting work 5.1 Perform concreting of wall footing, stiffener, columns and lintel beams based on line and grade 5.2 Perform consolidation of concrete 5.3 Observe safety precaution 5.4 Use appropriate PPE	TLE_IAMS9MW-IVe-h-5

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
materials 58. Ratio and proportion 59. Interpretation and conversion of units 60. Verbal/non-verbal communication 61. 5S of good housekeeping 62. methods of proper waste disposal 63. wastes and pollution 64. basic four fundamental operations 65. filling-up forms 66. reporting			LO 6. Perform housekeeping 1.1 Recover materials such as excess re-bars, scaffoldings and formworks 1.2 Stockpile recovered materials 1.3 Perform housekeeping 1.4 Use appropriate PPE	TLE_IAMS9MW-IVi-j-6

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INDUSTRIAL ARTS – MASONRY
GRADE 10 (Specialization)**

Course Description:

Prerequisite: Grade 9 Masonry

This course is composed of the core competencies which lead to **Masonry** National Certificate Level II (NCII). It covers lay brick/block for structure, plastering concrete/masonry surface and installing precast balusters and handrails. This also covers the knowledge, skills and attitude required to perform basic masonry works and prepare masonry materials.

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<p>Introduction</p> <ol style="list-style-type: none"> 1. Basic concepts in masonry 2. Relevance of the course 3. Career opportunities 	<p>The learner demonstrates an understanding of the basic concepts and underlying theories in masonry.</p>	<p>The learner independently demonstrates core competencies in masonry as prescribed by TESDA Training Regulations.</p>	<ol style="list-style-type: none"> 1. Explain basic concepts in masonry 2. Discuss the relevance of the course 3. Explore on opportunities for masonry as a career 	
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 PeCS in relation to a practitioner 3. Strengthening and further development of one's PeCS 	<p>The learner demonstrates an understanding of one's Personal Competencies and Skills (PeCS) in masonry.</p>	<p>The learner independently creates a plan of action that strengthens/ further develops one's PeCS in masonry.</p>	<p>LO 1. Develop and strengthen personal competencies and skills (PeCS) needed masonry</p> <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 	<p>TLE_PeCS10-IO-8</p>

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
ENVIRONMENT AND MARKET (EM)				
1. Product Development 2. Key concepts of developing a product 3. Finding Value 4. Innovation 4.1 Unique Selling 4.2 Proposition (USP)	The learner demonstrates an understanding of the concepts environment and market in the field of masonry, particularly in one's town/municipality.	The learner independently creates a business vicinity map reflective of potential Masonry market within the locality/town.	LO 1. Develop a product/ service in Masonry 1.1 Identify what is of "Value" to the customer 1.2 Identify the customer 1.3 Explain what makes a product unique and competitive 1.4 Apply creative and innovative techniques to develop marketable product 1.5 Employ a Unique Selling Proposition (USP) to the product/service	TLE_EM10-I0-II0-1
5. Selecting Business Idea 6. Key concepts of Selecting a Business Idea 6.1 Criteria 6.2 Techniques			LO 2. Select a business idea based on the criteria and techniques set 2.1 Enumerate various criteria and steps in selecting a business idea 2.2 Apply the criteria/steps in selecting a viable business idea 2.3 Determine a business idea based on the criteria/techniques set	TLE_EM10-III0-2
7. Branding			LO 3. Develop a brand for the product 3.1 Identify the benefits of having a good brand 3.2 Enumerate recognizable brands in the town/province 3.3 Enumerate the criteria for developing a brand 3.4 Generate a clear appealing product brand	TLE_EM10-IV0-3
LAY BRICK/BLOCK FOR STRUCTURE (LB)				
1. Classification of work plans 2. Interpretation of work plans	The learner demonstrates an understanding of the concepts and underlying principles in laying brick/block for structure.	The learner independently lays brick/block for structure based on job requirements.	LO 1. Prepare for laying brick/block for structure 1.1 Interpret plan of a brick/block structure 1.2 Select tools, materials and equipment	TLE_IAMS10LB-Ia-f-1

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
3. Brick/block laying tools and equipment 4. Proper storing of materials 5. Composition of bricks/block 6. Characteristic of soils 7. Effects of heat 8. Basic operations 9. Mensuration 10. Ratio and proportion 11. Preparing, reading and interpreting work plans			1.3 Stockpile materials for laying brick/block structure	
12. Reference building lines 13. Brick/block laying tolerances 14. Proper housekeeping practices 15. Basic structural bonds and Joints 16. Classification of concrete masonry units 17. Geographical orientation 18. Topographical conditions 19. Mensuration 20. Basic operations 21. Reading and interpreting graphs and conversion tables 22. Receiving and responding to workplace communication			LO 2. Lay-out/establish brick/block structure location 2.1 Identify reference building lines 2.2 Establish location of brick/block structure based on reference building lines 2.3 Lay-out brick/block structure according to job specifications	TLE_IAMS10LB-Ig-j-2

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
23. Selection and use of appropriate PPE. 24. Procedures in installing horizontal/vertical guide for brick/block 25. Reinforcement bars/dowel Sizes 26. Brick/block laying procedures 27. OHS regulations 28. Geographical orientation 29. Mensuration 30. Basic operations 31. Reading and interpreting graphs and tables 32. Receiving and responding to workplace communication			LO 3. Perform laying brick/block for structure 3.1 Install horizontal/vertical guide for brick/block structure 3.2 Install reinforcing bar/dowel 3.3 Spread mortars on the base edge of brick/block 3.4 Position brick/block according to design/specification/location 3.5 Check plumbness during brick/block laying 3.6 Perform housekeeping 3.7 Use appropriate PPE	TLE_IAMS10LB-IIa-f-3
33. Standard operating procedures 34. Proper housekeeping practices 35. Recycling 36. Basic operations			LO 4. Complete laying of brick/block for structure 4.1 Cast-in place concrete structures are constructed according to design and job specifications 4.2 Inspect the work to ensure conformity with requirements 4.3 Perform housekeeping 4.4 Use appropriate PPE	TLE_IAMS10LB-IIg-j-4
PLASTERING CONCRETE/MASONRY SURFACE (PC)				
1. Preparation and selection of tools, equipment and materials 2. Preparation of wall surface for plastering	The learner demonstrates an understanding of the underlying principles in plastering wall surface.	The learner independently plasters wall surfaces based on job requirements.	LO 1. Prepare concrete/masonry surfaces for plastering 1.1 Select tool, materials and equipment 1.2 Perform wall surface preparations	TLE_IAMS10PC-IIIa-d-3

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
3. Composition and properties of concrete/masonry materials 4. Climatic conditions 5. Basic operations 6. Mensuration 7. Conversion of units 8. Receiving and responding to workplace communication				
9. Interpretation of plans and details 10. Selection and preparation of materials and tools for plastering 11. Mixing proportion of plaster mortar 12. Proper storing of materials 13. Texture of concrete and masonry surfaces 14. Interpretation of plans and details 15. Mensuration			LO 2. Prepare for plastering concrete 2.1 Interpret plans and details 2.2 Select tools, materials and equipment in line with job requirements 2.3 Store/stockpile materials for plastering	TLE_IAMS10PC-IIIe-f-2
16. Procedures of plastering 17. Plastering techniques 18. OHS regulations 19. Climatic conditions 20. Health hazards 21. Recycling 22. Waste and pollution 23. Linear measurements 24. Mensuration			LO 3. Perform plastering work 3.1 Determine the required thickness, plumbness, squareness, levelness and alignment of structure. 3.2 Distribute mortar/coating on the wall surface 3.3 Use appropriate PPE 3.4 Observe safety precaution	TLE_IAMS10PC-IIIg-j-3

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
25. Standard operating procedures 26. Proper housekeeping practices 27. Masonry materials preservation 28. Recycling 29. Basic calculations 30. Mensurations 31. Filling-up forms 32. Reporting			LO 4. Complete plastering work 4.1 Complete plastering work according to job specification 4.2 Perform housekeeping 4.3 Use appropriate PPE	TLE_IAMS10PC-IVa-d-4
INSTALLING PRE-CAST BALUSTERS AND HANDRAILS (IB)				
1. Interpretation of plans and details 2. Preparing And Selecting Materials Tools And Equipment 3. Proper Storing Of Materials 4. Mixing Proportion Of Materials 5. Phases Of Matter 6. Interpretation Of Plans And Details 7. Linear Measurements 8. Basic Operations	The learner demonstrates an understanding of the underlying principles of installing pre-cast balusters and handrail.	The learner independently installs pre-cast balusters and handrail based on job requirements.	LO 1. Prepare for installing pre-cast balusters and handrails 1.1 Interpret plans and drawings 1.2 Select tools, materials and equipment 1.3 Stockpile materials 1.4 Establish location of pre-cast balusters based on a given task	TLE_IAMS10IB-IVe-f-5
9. Lay outing/marketing distance of balusters 10. Checking alignment of balusters 11. Mortar application 12. PPE 13. OHS regulations 14. Geographical conditions			LO 2. Perform pre-cast baluster and handrail installation 2.1 Lay-out and mark pre-cast baluster according to job requirements 2.2 Align precast baluster and handrail according to job requirements 2.3 Apply mortar to pre-cast baluster and handrails	TLE_IAMS10IB-IVg-h-2

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
15. Climatic conditions 16. Force, power and energy 17. Conversion of units 18. Linear/angular measurements			2.4 Use appropriate PPE 2.5 Perform housekeeping	
19. Standard operating procedures 20. Proper housekeeping practices 21. Masonry materials preservation 22. Recycling 23. Basic calculations 24. Mensurations 25. Filling-up forms 26. Reporting			LO 3. Complete installation of pre-cast baluster and handrail 3.1 Conduct final checking to ensure conformity with job requirements 3.2 Conduct final installation of pre-cast baluster and handrail 3.3 Perform housekeeping	TLE_IAMS10IB-IVi-j-3

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GLOSSARY

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INDUSTRIAL ARTS – MASONRY
Code Book Legend**

Sample: TLE_IAMS7/8UT-0a-1

LEGEND		SAMPLE	
First Entry	Learning Area and Strand/ Subject or Specialization	Technology and Livelihood Education_Industrial Arts Masonry	TLE_IA MS 7/8
	Grade Level	Grade 7/8	
Uppercase Letter/s	Domain/Content/ Component/ Topic	Prepare Construction Materials and Tools	UT
			-
Roman Numeral <i>*Zero if no specific quarter</i>	Quarter	No Specific Quarter	0
Lowercase Letter/s <i>*Put a hyphen (-) in between letters to indicate more than a specific week</i>	Week	Week One	a
			-
Arabic Number	Competency	Prepare masonry materials and tools for the task	1

DOMAIN/ COMPONENT	CODE
Personal Entrepreneurial Skills	PECS
Environment and Marketing	EM
Prepare Construction Materials and Tools	UT
Perform Mensuration and Basic Calculation	MC
Maintain Tools and Equipment	MT
Practice Occupational Health and Safety Procedure	OS
Prepare Masonry Materials	MM
Perform Basic Masonry Works	MW
Lay Brick/Block for Structure	LB
Plastering Concrete/ Masonry Surface	PC
Installing Pre-Cast Balusters and Handrails	IB



Republic of the Philippines
DEPARTMENT OF EDUCATION



K to 12 BASIC EDUCATION CURRICULUM

TECHNOLOGY AND LIVELIHOOD EDUCATION

CURRICULUM GUIDE

Exploratory Course on

CONSUMER ELECTRONICS SERVICING

K to 12 TECHNOLOGY AND LIVELIHOOD EDUCATION

**INDUSTRIAL ARTS – CONSUMER ELECTRONICS SERVICING
(Exploratory)**

Curriculum Guide for the Exploratory Course on Consumer Electronics Servicing

For you to get a complete picture of the complete TLE exploratory course on Consumer Electronics Servicing, you are hereby provided with the Curriculum Guide on Consumer Electronics Servicing.

Content Standard	Performance Standard	Learning Competencies	Project/ Activities	Assessment	Duration
LESSON 1: USE OF HANDTOOLS					
<p><i>Demonstrate understanding of/on:</i></p> <ul style="list-style-type: none"> Identifying appropriate hand tools Selecting appropriate hand tools 	<ol style="list-style-type: none"> Appropriate hand tools are identified. Hand tools are selected according to the task requirements. 	LO1. Plan and prepare for tasks to be undertaken.	<ol style="list-style-type: none"> Drawing the different tools used in electronic drafting and giving their functions (matrix form). Drawing a project plan of a soldering activity. Practicing soldering using copper wires with specified sizes in diameter and length. 	<ul style="list-style-type: none"> Written test Performance test 	6 hours
<ul style="list-style-type: none"> Operation of hand tools Function of hand tools Common faults of hand tools Safety requirements for handling tools 	<ol style="list-style-type: none"> Appropriate hand tools are checked for proper operation and safety. Unsafe or faulty tools are identified. All tools for repair according to standard company procedures are marked. 	LO2. Prepare hand tools.		<ul style="list-style-type: none"> Performance test 	
<ul style="list-style-type: none"> Function of tools Safety requirements of tools Proper use of tools 	<ol style="list-style-type: none"> Tools are used according to tasks undertaken. All safety procedures in using tools are observed at all times. Malfunctions, unplanned or unusual events are reported to the supervisor. 	LO3. Use appropriate hand tools and test equipment.		<ul style="list-style-type: none"> Performance test 	

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Content Standard	Performance Standard	Learning Competencies	Project/ Activities	Assessment	Duration
LESSON 2: PERFORMING MENSURATION AND CALCULATION					
<p><i>Demonstrate understanding of/on:</i></p> <ul style="list-style-type: none"> • Types of components and objects to be identified • Correct specifications relevant sources • Measuring toolsselecting the job requirements • Work instruction • Communication skills 	<ol style="list-style-type: none"> 1. Object or component to be measured is identified. 2. Correct specifications are obtained from relevant source. 3. Appropriate measuring instrument is selected in line with job requirement. 	LO1.Select measuring instrument.	<ol style="list-style-type: none"> 1. Draw the resistor color coding chart. 2. Identify different resistors based on their color coded value. 	<ul style="list-style-type: none"> • Written test • Performance test 	6 hours
<ul style="list-style-type: none"> • Appropriate measuring instruments to be used • Using accurate measurements for the tasks given. • Using the four fundamental mathematical operations • Introducing proper procedure in calculating fractions, percentages, and mixed numbers • Interpreting work instruction 	<ol style="list-style-type: none"> 1. Appropriate measuring instruments are selected to achieve required outcome. 2. Accurate measurements are obtained for job specifications. 3. Calculations needed to complete work tasks are performed using the four fundamental operations (addition, subtractions, multiplication and division) 4. Calculation involving fractions, percentages, and mixed numbers are used to complete workplace tasks. 5. Instrumentsare read to the limit accuracy of the tool. 	LO2. Carry out measurement and calculation.	<ol style="list-style-type: none"> 1. Measuring resistors value and compare to their color-coded value. 2. Computing for the tolerance values of resistors. 3. Solving problems involving Ohm's Law and Power Law. 	<ul style="list-style-type: none"> • Performace test • Written test • Written test 	

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Content Standard	Performance Standard	Learning Competencies	Project/ Activities	Assessment	Duration
<ul style="list-style-type: none"> Using appropriate instruments tools to avoid damage. Proper procedure in cleaning up the workplace before and after using Identifying the proper storage of the instruments to be kept that met the manufacturer’s specifications and standard to avoid damage in mismatching. Reading skills required to interpret work instruction 	<ol style="list-style-type: none"> Measuring instruments are not dropped to avoid damage. Measuring instruments are cleaned before and after using. Proper storage of instruments is undertaken according to the manufacturer’s specifications and standard operating procedures. 	LO3. Maintain measuring instrument.	<ol style="list-style-type: none"> Demonstrating proper care and handling tools and instruments in testing electronic components. 	<ul style="list-style-type: none"> Written test Performance test 	8 hours
LESSON 3: PREPARING AND INTERPRETING TECHNICAL DRAWING					
<p><i>Demonstrate understanding of/on:</i></p> <ul style="list-style-type: none"> Drawing conventions Symbols Dimensioning conventions Mark-p/ notation of drawings 	<ol style="list-style-type: none"> Correct technical drawing is selected according to job requirements. Technical drawings are segregated in accordance with the types and kinds of drawings. 	LO1. Identify different kinds of technical drawings.	<ol style="list-style-type: none"> Drawing the different electronic symbols with their corresponding physical appearance. 	<ul style="list-style-type: none"> Performance test 	8 hours
<ul style="list-style-type: none"> Interpreting work instructions Interpreting electrical/ 	<ol style="list-style-type: none"> Components, assemblies or objects are recognized as required. 	LO2. Interpret technical drawing.	<ol style="list-style-type: none"> Drawing the schematic and pictorial diagrams of the following circuits: 	<ul style="list-style-type: none"> Performance test 	

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Content Standard	Performance Standard	Learning Competencies	Project/ Activities	Assessment	Duration
electronic signs and symbols	2. Dimensions of the key features of the objects depicted in the drawing are correctly identified. 3. Symbols used in the drawing are identified and interpreted correctly. 4. Drawing are checked and validated against job requirements or equipment in accordance with standard operating procedures.		a. Blinker b. Power supply		
<ul style="list-style-type: none"> Tools and equipment for drawing 	1. Electrical/ electronic schematic diagrams are drawn and correctly identified. 2. Correct drawing are identified, equipment are selected and used in accordance with job requirements.	LO3. Prepare/Make changes on electrical/ electronic schematic diagrams.	1. Converting the unregulated power supply to regulated one.	<ul style="list-style-type: none"> Written test Performance test 	

LESSON 4: OBSERVING OCCUPATIONAL HEALTH AND SAFETY

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Content Standard	Performance Standard	Learning Competencies	Project/ Activities	Assessment	Duration
<p><i>Demonstrate understanding of/on:</i></p> <ul style="list-style-type: none"> • Health hazards in the work area • Occupational risks • Personal protective equipment <p>Safety nets in the work area</p>	<ol style="list-style-type: none"> 1. Health hazards and occupational risks are identified. 2. Safety nets are formulated and installed. 3. Protective equipment are identified. <p>Occupational health and safety practices are observed.</p>	<p>LO1. Identify health hazards and occupational risks.</p>	<ol style="list-style-type: none"> 1. Identifying health hazards and occupational risks found in your shop room. 2. Determining the presence of PPE in your laboratory Area. 	<ul style="list-style-type: none"> • Performance test • Written test • Interview 	<p>6 hours</p>
<ul style="list-style-type: none"> • Measures advancing occupational health. • Safety practices in electronics laboratory. 	<ol style="list-style-type: none"> 1. Measures advancing occupational health are observed. 2. Safety procedures are practiced. 	<p>LO2. Observe occupational health and safety practices.</p>	<ol style="list-style-type: none"> 1. Arranging laboratory equipment, tables, chairs, and other related facilities in line with standard OH and S. 	<ul style="list-style-type: none"> • Performance test • Written test • Interview 	

**INDUSTRIAL ARTS – CONSUMER ELECTRONICS SERVICING
(Exploratory)**

LESSON 5: MAINTAIN HAND TOOLS AND EQUIPMENT					
<p><i>Demonstrate understanding of/on:</i></p> <ul style="list-style-type: none"> Maintenance of tools Storage of tools Standard operational procedures, principles, and techniques in maintaining tools 	<ol style="list-style-type: none"> Tools are used according to tasks undertaken. Routine maintenance of tools are undertaken according to standard operational procedures, principles and techniques. Tools are stored safely in appropriate locations in accordance with manufacturer specifications or standard operating procedures. 	LO1. Maintain hand tools	<ol style="list-style-type: none"> Performing maintenance procedure on electronic tools and equipment. Performing functional arrangement of electronic hand tools and equipment in cabinet. 	Written test, Oral test Performance test	6 hours
<ul style="list-style-type: none"> Preventive maintenance of hand tools and equipment 	<ol style="list-style-type: none"> Tools and equipment are maintained according to its physical material. Preventive maintenance are regularly conducted 	LO2. Perform basic maintenance of hand tools and equipment .	<ol style="list-style-type: none"> Performing preventive Maintenance on individual Tool and equipment 	Written test, Oral test Performance test	
					40 hours

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- Confucius



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K to 12 BASIC EDUCATION CURRICULUM

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**Exploratory Course on
MECHANICAL DRAFTING**

K to 12 TECHNOLOGY AND LIVELIHOOD EDUCATION

**INDUSTRIAL ARTS - MECHANICAL DRAFTING
(Exploratory)**

Curriculum Guide for the Exploratory Course

For you to get a complete picture of the complete TLE exploratory course on Mechanical Drafting, you are hereby provided with the Curriculum Guide on Mechanical Drafting.

Content Standard	Performance Standard	Learning Competencies	Projects/Activities	Assessment	Duration
LESSON 1: PREPARING DRAFTING MATERIALS AND TOOLS/DRAWING INSTRUMENTS					
<p><i>Demonstrate understanding of/on:</i></p> <ul style="list-style-type: none"> • Drafting Materials and Tools, its uses/function • Proper manipulation of drafting materials tools and drawing instruments 	<ol style="list-style-type: none"> 1. Drafting materials, Tools and Drawing instruments are identified as per job requirements. 2. Materials and drawing tools are classified according to their uses. 	<p>LO1. Identify drafting materials and tools/drawing instruments applicable to a specific job.</p>	<ol style="list-style-type: none"> 1. Compiling sample pictures of the different tools and drawing materials and classifying them. 2. Demonstrating the proper manipulation of drawing instruments. 	<ul style="list-style-type: none"> • Performance test • Written test 	<p>6 hours</p>
<ul style="list-style-type: none"> • Procedures in receiving and storing tools and materials • Different requisition forms and procedures 	<ol style="list-style-type: none"> 1. Materials and tools are received and inspected based on the specified quantity as requisition. 2. Tools and materials are checked for damages and manufacturing defects 	<p>LO2. Request, receive, inspect and store drafting materials and tools.</p>	<ol style="list-style-type: none"> 1. Preparing list of drafting materials and tools per job requirement 2. Filling-up different forms such as requisition slip, borrower's slip, etc. 3. Labeling tools and materials and storing/safekeeping them properly. 4. Testing the functionality of delivered tools and materials. 	<ul style="list-style-type: none"> • Performance test • Written test 	<p>3 hours</p>

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**INDUSTRIAL ARTS - MECHANICAL DRAFTING
(Exploratory)**

Content Standard	Performance Standard	Learning Competencies	Projects/Activities	Assessment	Duration
LESSON 2: PERFORMING BASIC MENSURATION AND CALCULATION					
<p><i>Demonstrate understanding of/on:</i></p> <ul style="list-style-type: none"> Different measuring instruments and their application Importance of Measuring Tools 	<ol style="list-style-type: none"> Measuring instruments are selected and used according to the level of accuracy required. Measurements taken are accurate to the finest gradation of the selected measuring instrument. Measuring techniques used are correct and appropriate to the instrument used. 	LO1. Select and use measuring instruments.	<ol style="list-style-type: none"> Identifying the different measuring instruments Observing proper use of measuring instruments 	<ul style="list-style-type: none"> Self-paced learning activities Guided demonstration (performance based) 	6 hours
<ul style="list-style-type: none"> Clean and store measuring tools 	<ol style="list-style-type: none"> Measuring instruments are cleaned in accordance with established standards. Measuring instruments are stored in accordance with established standards. 	LO2. Clean and store measuring instruments.	<ol style="list-style-type: none"> Storing/safe keeping measuring tools properly 	<ul style="list-style-type: none"> Performance test 	2 hours
<ul style="list-style-type: none"> Conversion of fraction to decimal and decimal to fraction Rounding off decimal 	<ol style="list-style-type: none"> Conversion results of fraction to decimal are accurate up to 2 decimal places. Conversion results of decimal to fraction are accurate to the nearest standard measurement 	LO3. Convert fraction to decimal and vice versa	<ol style="list-style-type: none"> Solving problems and exercises correctly in: <ol style="list-style-type: none"> converting fraction to decimal or decimal to fraction 	<ul style="list-style-type: none"> Written test 	2 hours

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**INDUSTRIAL ARTS - MECHANICAL DRAFTING
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Content Standard	Performance Standard	Learning Competencies	Projects/Activities	Assessment	Duration
<ul style="list-style-type: none"> • Trade Mathematics and Measurement • Two system of measurements • Conversion of units of linear measurement. 	<ol style="list-style-type: none"> 1. English and metric measurements identified. 2. Conversion of English to metric system or metric to English system is performed according to standard procedure. 	LO4. Convert English to metric measurement system and vice versa	<ol style="list-style-type: none"> 1. Solving problems and exercises correctly. 2. Converting units of linear measurement. 3. Converting decimal to fraction 	<ul style="list-style-type: none"> • Written test 	2 hours
LESSON 3: INTERPRETING WORKING PLANS AND SKETCHES					
<ul style="list-style-type: none"> • Alphabet of lines • Line Sketching • Theories and principles of orthographic projections • Orthographic Projections • Pictorial drawing • More on Oblique Drawing • Scaling • Rules in Dimensioning • Preparation of Working Plans • Assembly and detailed drawing 	<ol style="list-style-type: none"> 1. Orthographic and pictorial drawings are interpreted according to drawing standards. 2. Assembly and detailed drawings are interpreted according to drawing standards. 	LO1. Identify assembly and detailed drawing.	<ol style="list-style-type: none"> 1. Practicing line sketching 2. Sketching sample detail and assembly drawings 3. Observing drawing standards 4. Sketching orthographic views and pictorial views 5. Preparing a working plan 6. Identifying proper line applications 	<ul style="list-style-type: none"> • Written test • Performance test 	13 hours

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**INDUSTRIAL ARTS - MECHANICAL DRAFTING
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LESSON 4: APPLYING SAFETY PRACTICES					
<p><i>Demonstrate understanding of/on:</i></p> <ul style="list-style-type: none"> Occupational safety standards and enterprise safety policies. Practicing Proper Procedures in using drafting tools, materials and instrument Keeping Workplace Clean and organized following 5S Accident Prevention Signs and Symbols Hazards in the workplace Types of workplace hazards and examples 	<ol style="list-style-type: none"> Hazards are identified correctly in accordance with OHS procedures. Safety signs and symbols are identified and adhered to in accordance with workplace safety procedures. 	<p>LO1. Identifying hazardous area</p>	<ol style="list-style-type: none"> Observing safety work habits in the work place Multimedia presentation 	<ul style="list-style-type: none"> Written test Performance test 	<p>4 hours</p>
<ul style="list-style-type: none"> Personal protective equipment (PPE) for different drafting operations 	<ol style="list-style-type: none"> Personal protective clothing/equipment (PPE) identified per job requirements. Proper wearing of PPE is properly observed in accordance with workplace safety policies. 	<p>LO2. Use personal protective clothing and devices</p>	<ol style="list-style-type: none"> Familiarizing oneself with the different types and uses of personal protective equipment (PPE) Multimedia presentation 	<ul style="list-style-type: none"> Written test Actual demonstration 	<p>2 hours</p>
					<p>40 hours</p>

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**INDUSTRIAL ARTS - MECHANICAL DRAFTING
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**Exploratory Course on
TILES SETTING**

K to 12 TECHNOLOGY AND LIVELIHOOD EDUCATION

**INDUSTRIAL ARTS – TILES SETTING
(Exploratory)**

Curriculum Guide for the Exploratory Course on Tiles Setting

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Content Standard	Performance Standard	Learning Competencies	Project/ Activities	Assessment	Duration
LESSON 1:PREPARE CONSTRUCTION MATERIALS AND TOOLS					
<p><i>Demonstrate understanding of/on:</i></p> <ul style="list-style-type: none"> Materials in tile setting Tools used in tile setting 	<ol style="list-style-type: none"> Tools and materials are identified per job requirements Tools are classified according to their functions per job requirements. Materials are classified according to their uses for specific construction project. Tools and materials are selected per job requirement. 	<p>LO1. Identify materials and tools applicable to a specific job</p>	<ol style="list-style-type: none"> List down the materials needed in tile setting. Use tile setting tools properly 	<ul style="list-style-type: none"> Direct observation Written test/questioning 	<p>3 hours</p>
<ul style="list-style-type: none"> Accomplishing different forms like job order slips, tools and materials requisition slips, and borrower’s slips Following accurate requisition procedures Schematic Diagram 	<ol style="list-style-type: none"> Needed materials and tools are listed per job requirement. Materials and tools are requested according to the prepared list. Requests are done per company’s standard operating procedures (SOP). Materials and tools are 	<p>LO2. Receive and inspect materials</p>	<ol style="list-style-type: none"> Accomplish different forms needed in requisitioning, receiving, borrowing and inspecting tile setting materials 	<ul style="list-style-type: none"> Oral questioning Direct observation Written test 	<p>2 hours</p>

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**INDUSTRIAL ARTS – TILES SETTING
(Exploratory)**

Content Standard	Performance Standard	Learning Competencies	Project/ Activities	Assessment	Duration
	provided and unavailable ones substituted without sacrificing cost and quality of work.				
LESSON 2: PERFORMING MENSURATIONS AND CALCULATIONS					
<p><i>Demonstrate understanding of/on:</i></p> <ul style="list-style-type: none"> • Kinds of Measurements <ul style="list-style-type: none"> • English • Metric • Measurements Conversions from English to metric and vice versa 	<ol style="list-style-type: none"> 1. Calculation needed to complete work tasks are performed using the four basic processes of addition (+), subtraction(-), multiplication (x) and division (/) including but not limited to: Trigonometric functions and Algebraic computations. 2. Calculations involving fractions, percentages, and mixed numbers are used to complete workplace tasks. 3. Numerical computations are self-checked and corrected for accuracy. 4. Accurate measurements are obtained according to job requirements. 5. Systems of measurements are identified and converted 	<p>LO1.Carry out measurements and calculations</p>	<ol style="list-style-type: none"> 1. Making simple computations using the four fundamental operations 3.Measuring the lengths, width and thickness of some pieces of ceramic tile and wood which will be presented in the class. 4.Role play 	<ul style="list-style-type: none"> • Oral questioning • Direct observation • Written test 	<p>4 hours</p>

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**INDUSTRIAL ARTS – TILES SETTING
(Exploratory)**

Content Standard	Performance Standard	Learning Competencies	Project/ Activities	Assessment	Duration
	according to job requirements 6. Work pieces are measured according to job requirements.				
<ul style="list-style-type: none"> • Select measuring tools • Visualizing objects and shapes specifically geometric shapes. • Measuring Instruments/Measuring Tools 	<ol style="list-style-type: none"> 1. Objects or components to be measured are identified, classified, and interpreted according to the appropriate regular geometric shapes. 2. Measuring tools are selected/identified per object to be measured or according to job requirements 3. Correct specifications are obtained from relevant sources. 4. Measuring instruments are selected according to job requirements. 5. Alternative measuring tools are used without sacrificing cost and quality of work. 6. Measurements are obtained according to job requirements. 	LO2. Select Measuring Instrument	<ol style="list-style-type: none"> 1. Identify shapes of tiles 	<ul style="list-style-type: none"> • Actual demonstration • Direct observation • Written test/questioning 	4 hours

K to 12 TECHNOLOGY AND LIVELIHOOD EDUCATION

**INDUSTRIAL ARTS – TILES SETTING
(Exploratory)**

Content Standard	Performance Standard	Learning Competencies	Project/ Activities	Assessment	Duration
LESSON 3: INTERPRETING TECHNICAL DRAWINGS AND PLANS					
<p><i>Demonstrate understanding of/on:</i></p> <ul style="list-style-type: none"> Drawing symbols and signs according to job specifications Alphabet of line Ways of drawing different types of lines 	<ol style="list-style-type: none"> Signs, symbols, and data are identified according to job specifications. Signs, symbols and data are determined according to classification or as appropriateness in drawing. 	LO1 Read/Interpret blueprints and plans	<ol style="list-style-type: none"> Enumerate the lines necessary in making working drawing. Perform proper strokes in drawing different types of line. 	<ol style="list-style-type: none"> Demonstration Direct observation Writtentest/questioning 	3 hours
<ul style="list-style-type: none"> Basic technical drawing Freehand sketching Five general uses of freehand sketching schematic diagram and illustration 	<ol style="list-style-type: none"> Necessary tools, materials and equipment are identified according to the plan. Components, assemblies or objects are recognized per job requirement. Dimensions and specifications are identified according to job requirements. Freehand sketch is produced in accordance with job requirements. 	LO2. Perform freehand sketching	<ol style="list-style-type: none"> Make a sketch of an area of four feet long and four feet wide to be tiled with 4 by 4 tiles. 	<ul style="list-style-type: none"> Practical application/performance test Written test/questioning 	3hours

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**INDUSTRIAL ARTS – TILES SETTING
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Content Standard	Performance Standard	Learning Competencies	Project/ Activities	Assessment	Duration
LESSON 4: MAINTAINING TOOLS AND EQUIPMENT					
<p><i>Demonstrate understanding of/on:</i></p> <ul style="list-style-type: none"> Types of Tools and Equipment Classification of functional and non-functional tools Uses of Personal Protective Equipment (PPE). 	<ol style="list-style-type: none"> Tools and equipment are identified according to classification/specification and job requirements. Functional and non-functional tools and equipment are segregated and labeled according to classification. Safety of tools and equipment are observed in accordance with manufacturer's instructions. Conditions of PPE are checked in accordance with manufacturer's instructions. 	<p>LO1. Check condition of tools and equipment</p>	<ol style="list-style-type: none"> Enumerate the conditions of tools and equipment that needs maintenance or repair. 	<ul style="list-style-type: none"> Oral questioning Direct observation Written test 	<p>6hours</p>
<ul style="list-style-type: none"> Types and uses of lubricants Types and uses of cleaning materials/solvent OSHC workplace regulations (General precaution) 	<ol style="list-style-type: none"> Lubricants are identified according to types of equipment. Tools and equipment are lubricated according to preventive maintenance schedule or manufacturer's specifications. 	<p>LO2. Perform basic preventive maintenance.</p>	<ol style="list-style-type: none"> Explain the importance of lubricants in tool and equipment maintenance. Perform lubrication of tools 	<ul style="list-style-type: none"> Oral questioning Direct observation Written test 	<p>3 hours</p>

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	<ol style="list-style-type: none"> 3. Tools are cleaned and lubricated according to standard procedures. 4. Defective equipment and tools are inspected and replaced according to manufacturer’s specification. 5. Work place is cleaned and kept in safe state in line with OSHC regulations. 				
<ul style="list-style-type: none"> • Inventory of tools and equipment • Tools and equipment handling • Tool safe-keeping/storage 	<ol style="list-style-type: none"> 1. Inventory of tools, instruments, and equipment are conducted and recorded per company practices. 2. Tools are inspected and stored after use. 3. Tools and equipment are stored safely in accordance with manufacturer’s specifications or company procedures. 	<p>LO3. Store tools and equipment.</p>	<ol style="list-style-type: none"> 1. Explain the disadvantages of improper storing of tools and equipment. 	<ul style="list-style-type: none"> • Practical examination • Direct observation • Written test/questioning 	<p>2 hours</p>

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LESSON 5: PRACTICE OCCUPATIONAL HEALTH AND SAFETY PROCEDURES					
<p><i>Demonstrate understanding of/on:</i></p> <ul style="list-style-type: none"> • Threshold limit values (TLV) • TLV table • Philippine OHS standards • Hazardous occupations to young workers • Effects of hazards in the workplace • Ergonomics • ECC regulations 	<ol style="list-style-type: none"> 1. Terms of maximum tolerable limits are identified based on threshold limit value (TLV). 2. Effects of hazards are determined. 3. OHS issues and concerns are identified in accordance with workplace requirements. 4. Requirements and relevant workplace OHS legislation. 	<p>LO1. Evaluate hazards and risks</p>	<ol style="list-style-type: none"> 1. Identify known hazards and risks in the workplace. 	<ul style="list-style-type: none"> • Interview • Written examination • Simulation 	<p>2 hours</p>
<ul style="list-style-type: none"> • Safety regulations • Clean air act in relation to tile setting • Electrical and fire safety code • Waste management • Disaster preparedness and management • Contingency measures and procedures 	<ol style="list-style-type: none"> 1. OHS procedures for controlling hazards and risks are strictly followed. 2. Procedures in dealing with workplace accidents, fire and emergencies are followed in accordance with the organization’s OHS policies. 3. Personal protective equipment (PPE) is correctly used in accordance with organization’s OHS procedures and practices. 	<p>LO2. Control hazards and risks.</p>	<ol style="list-style-type: none"> 1. Demonstrate proper use of PPEs. 2. Perform waste segregations 	<ul style="list-style-type: none"> • Written examination • Interview 	<p>2 hours</p>

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	4. Procedures in providing appropriate assistance in the event of workplace emergencies are identified in line with the established organizational protocol.				
<ul style="list-style-type: none"> Operational health and safety procedure, practices and regulations 5S Emergency-related drills and training 	<ul style="list-style-type: none"> Procedures in emergency related drill are strictly followed in line with the established organizational guidelines and procedures. OHS personal records are filled up in accordance with workplace requirements. PPE are maintained in line with organization guidelines and procedures. 	LO3. Maintain occupational health and safety awareness	<ol style="list-style-type: none"> Make reaction papers about the emergency drills undertaken in the schools such as fire drill and earthquake drill Role play 	<ul style="list-style-type: none"> Demonstration Interview Written examination 	4hours
					40 hrs.

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- Confucius

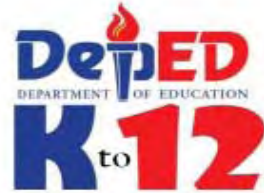


Information and Communications Technology (ICT)

- Computer Hardware Servicing
- Illustration
- Technical Drafting
- Contact Center Services

ICT CURRICULUM MAP

No.	Grade 7/8	Grade 9	Grade 10	Grade 11	Grade 12
1	EXPLORATORY COVERING COMMON COMPETENCIES	Computer Hardware Servicing (NC II)			
2		Illustration (NC II)			
3		Technical Drafting (NC II)			
4		Contact Center Services (NC II)			
5					Animation (NC II)
6					Medical Transcription (NC II)
7					Computer Programming (NC IV)



Computer Hardware Servicing

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY LIVELIHOOD EDUCATION
INFORMATION AND COMMUNICATIONS TECHNOLOGY - COMPUTER HARDWARE SERVICING
GRADE 7/8** (Exploratory)

Course Description:

This is an exploratory and introductory course which leads to a **Computer Hardware Servicing** National Certificate Level II (NC II). It covers **five** common competencies that a **Grade7/Grade 8** Technology and Livelihood Education (TLE) student ought to possess: 1) use of tools; 2) maintaining tools, equipment and paraphernalia; 3) performing mensuration and calculation; 4) interpreting technical drawing and plans; and 5) practicing Occupational Health and Safety (OHS) procedures.

The preliminaries of this exploratory 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	CODES
Introduction 1. Relevance of the course 2. Basic concepts in Computer Hardware Servicing 3. Career opportunities	The learner demonstrates understanding basic concepts and underlying theories of computer hardware servicing.	The learner independently demonstrates common competencies in computer hardware servicing as prescribed by TESDA Training Regulations.	1. Discuss the relevance of the course 2. Explain basic concepts in computer hardware servicing 3. Explore opportunities in computer hardware servicing as a career	
LESSON 1: PERSONAL ENTREPRENEURIAL COMPETENCIES - PECs (PC)				
1. Assessment of Personal Entrepreneurial Competencies and Skills (PECs) vis-à-vis a practicing entrepreneur/ employee's 1.1 Characteristics 1.2 Attributes 1.3 Lifestyle 1.4 Skills 1.5 Traits 2. Analysis of PECs in relation to a practitioner's	The learner demonstrates understanding of one's PECs in relation to computer hardware servicing.	The learner recognizes his/her PECs and prepares an activity plan that aligns with the PECs of a practitioner/entrepreneur's in computer hardware servicing.	LO 1. Recognize PECs needed in Computer Hardware Servicing 1.1 Assess one's PECs: characteristics, attributes, lifestyle, skills, traits 1.2 Assess practitioner's PECs: characteristics, attributes, lifestyle, skills, traits 1.3 Compare one's PECS with that of a practitioner/ entrepreneur's 1.4 Align one's PECS with those of a practitioner/entrepreneur's	TLE_PECs7/8-00-1
LESSON 2: ENVIRONMENT AND MARKET (EM)				
1. Key concepts of Environment and Market 2. Products and services available in the market 3. Differentiation of products and services 4. Customers and their buying	The learner demonstrates understanding of the concepts of environment and market that relate with a career choice in computer hardware servicing.	The learner independently generates a business idea based on the analysis of environment and market in computer hardware servicing.	LO 1. Generate a business idea that relates with a career choice in Computer Hardware Servicing 1.1 Conduct SWOT analysis 1.2 Identify the different products/services available in the market	TLE_EM7/8-00-1

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODES
habits 5. Competition in the market 6. SWOT Analysis			1.3 Compare different products/services in computer hardware servicing business 1.4 Determine the profile potential customers 1.5 Determine the profile potential competitors 1.5 Generate potential business idea based on the SWOT analysis	
LESSON 3: USE OF HAND TOOLS AND EQUIPMENT (UT)				
1. Hand tools in computer hardware servicing 2. Equipment in computer hardware servicing	The learner demonstrates understanding of the use of hand tools and equipment for computer hardware servicing.	The learner independently uses hand tools and equipment for computer hardware servicing.	LO 1. Prepare hand tools and equipment for computer hardware servicing 1.1 Prepare hand tools and equipment according to function and task requirement	TLE_ICTCS7/8UT-0a-1
3. Procedure in accomplishing forms: 3.1 Job order slips 3.2 Tools and materials requisition slips 3.3 Borrower's slip 4. Requisition procedures			LO 2. Inspect hand tools and equipment received 1.2 Check the list of tools and equipment to be requested per job requirement 2.2 Inspect the requested tools and equipment 2.3 Assess the condition of all hand tools and equipment for proper operation and safety	TLE_ICTCS7/8UT-0b-2
LESSON 4: MAINTAIN HANDTOOLS, EQUIPMENT AND PARAPHERNALIA (MT)				
1. Safety procedures in using hand tools and equipment 2. Procedures in cleaning, tightening and simple repair of hand tools, equipment and paraphernalia 3. Common malfunction in hand tools, equipment and paraphernalia 4. Reporting to property custodian	The learner demonstrates understanding of concepts and underlying principles in maintaining the tools, equipment and paraphernalia for computer hardware servicing.	The learner independently maintains the tools, equipment and paraphernalia for computer hardware servicing.	LO 1. Use and maintain hand tools, measuring instrument and equipment 1.1 Perform safety procedures in using hand tools and equipment 1.2 Follow procedures in cleaning, tightening and simple repair of hand tools, equipment and paraphernalia 1.3 Identify common malfunction	TLE_ICTCS7/8MT-0c-d-1

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODES
			(unplanned or unusual events) when using tools, equipment and paraphernalia 1.4 Follow procedures in preparing a report to property custodian	
LESSON 5: PERFORM MENSURATION AND CALCULATION (MC)				
1. Types of components and objects to be measured: 1.1 Memory 1.2 Data storage capacity 1.3 Processor 1.4 Video card 2. Correct specifications of the relevant sources	The learner demonstrates understanding of concepts and underlying principles in performing measurements and calculations.	The learner independently performs accurate measurements and calculations based on a given tasks.	LO 1. Perform basic mensuration 1.1 Identify object/s to be measured 1.2 Use the correct specifications as specified in the operating system	TLE_ICTCS7/8MC-0e-1
3. Conversion and calculation 3.1 Capacity and speed 3.2 Memory 3.3 Data storage 3.4 Processor 3.5 Video card			LO 2. Carryout mensuration and calculation 2.1 Perform calculation needed to complete task using the four mathematical fundamental operations (addition, subtraction, multiplication and division) 2.2 Employ different techniques in checking accuracy of the computation	TLE_ICTCS7/8MC-0f-2
LESSON 6: PREPARE AND INTERPRET TECHNICAL DRAWING (TD)				
1. Basic symbols 2. Basic Elements 2.1 Schematic diagram 2.2 Charts 2.3 Block diagrams 2.4 Layout plans 2.5 Loop diagram	The learner demonstrates understanding of concepts and underlying principles in preparing and interpreting technical drawings and work plans for computer hardware servicing.	The learner independently prepares and interprets technical drawings and work plans accurately.	LO 1. Identify different kinds of technical drawings 1.1 Identify basic symbols used in technical drawing 1.2 Select technical drawing in accordance with the job requirement	TLE_ICTCS7/8TD-0g-1
3. Flowchart interpretation 3.1 Types of flowchart			LO 2. Interpret technical drawing 2.1 Identify the basic symbols used in flow charting 2.2 Interpret the symbols used in flow charting	TLE_ICTCS7/8TD-0h-2

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODES
			2.3 Create a flowchart that depicts a simple scenario	
LESSON 7: PRACTICE OCCUPATIONAL HEALTH AND SAFETY PROCEDURES (OS)				
1. Hazards and risks control 1.1 safety regulations 1.2 indicators of hazard and risks 1.3 contingency measures	The learner demonstrates understanding of concepts and underlying principles of Occupational Health and Safety (OHS) procedures in relation to hazards and risks in the workplace.	The learner consistently observes and practices occupational health and safety procedures in the workplace.	LO 1. Identify hazards and risks 1.1 Explain hazards and risks in the workplace 1.2 Identify hazards and risks indicators in the workplace 1.3 Apply contingency measures in accordance with the OHS procedures	TLE_ICTCS7/8OS-0i-1
2. Evaluation of hazards and risks 2.1 Effects of hazards and risks in the work place			LO 2. Evaluate hazards and risks 2.1 Determine the effects of hazards and risks 2.2 Classify the types of hazards and risks in the workplace	TLE_ICTCS7/8OS-0j-2
3. Hazards and risks control 3.1 Safety regulation			LO 3. Control hazards and risks 3.1 Follow OHS Procedures for controlling hazards and risks 3.2 Use personal protective equipment (PPE) 3.3 Follow and observe organizational protocol when providing emergency assistance	TLE_ICTCS7/8OS-0j-3
4. Maintenance of OHS procedures awareness 5. OHS procedures, practices and regulations			LO 4. Maintain occupational health and safety regulations 4.1 Participate in related drills and training 4.2 Prepare OHS personal records in accordance with workplace requirements	TLE_ICTCS7/8OS-0j-4

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY LIVELIHOOD EDUCATION
INFORMATION AND COMMUNICATIONS TECHNOLOGY - COMPUTER HARDWARE SERVICING
Grade 9 (Specialization)**

Course Description:

This is a specialization course which leads to a **Computer Hardware Servicing** National Certificate Level II (NC II). It covers **two core** competencies that a **Grade 9** Technology and Livelihood Education (TLE) student ought to possess: 1) installing computer systems and networks; and 2) diagnosing and troubleshooting computer systems.

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 1. Relevance of the course 2. Basic concepts and core competencies in Computer Hardware Servicing 3. Career opportunities	The learner demonstrates understanding of basic concepts, underlying theories and core competencies in computer systems and networks.	The learner independently provides quality and marketable service in computer hardware servicing in terms of computer systems and networks installation, and diagnoses and troubleshoots computer systems as prescribed by TESDA Training Regulations.	1. Discuss the relevance of the course 2. Explain basic concepts, theories and core competencies in computer hardware servicing 3. Explore opportunities in computer hardware servicing as a career	
LESSON 1: PERSONAL ENTREPRENEURIAL COMPETENCIES - PECs (PC)				
1. Assessment of Personal Competencies and Skills (PECs) vis-à-vis a practicing entrepreneur/ employee in locality 1.1 Characteristics 1.2 Attributes 1.3 Lifestyle 1.4 Skills 1.5 Traits 2. Analysis of PECs in relation to a practitioner's 3. Align, strengthen and develop ones PECs based on the results	The learner demonstrates understanding of one's PECs in computer hardware servicing.	The learner recognizes his/her PECs and prepares an activity plan that aligns with the PECs of a practitioner/entrepreneur's in the computer hardware servicing business..	LO 1. Recognize PECs needed in Computer Hardware Servicing 1.1 Assess one's PECs: characteristics, attributes, lifestyle, skills, traits 1.2 Assess practitioner's PECs: characteristics, attributes, lifestyle, skills, traits 1.3 Compare one's PECs with that of a practitioner /entrepreneur's 1.4 Align one's PECs with those of a practitioner/entrepreneur's	TLE_PECs9-IO-1
LESSON 2: ENVIRONMENT AND MARKET (EM)				
1. Market (Town) 2. Key concepts of Market 3. Players in the market (Competitors) 4. Products and services available in the market	The learner demonstrates understanding of environment and market in computer hardware servicing in one's locality.	The learner independently creates a business vicinity map reflective of the potential computer hardware servicing market within the locality.	LO 1. Recognize and understand the market in computer hardware servicing 1.1 Identify the players/ competitors within the town	TLE_EM9-IO-1

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			1.2 Identify the different products/services available in the market	
5. Market (Customer) 6. Key concepts of identifying and understanding the consumer 7. Consumer Analysis through: 7.1 Observation 7.2 Interviews 7.3 Focus Group Discussion 7.4 Survey			LO 2. Recognize the potential customer/market in computer hardware servicing 2.1 Identify the profile of potential customers 2.2 Identify the customer's needs and wants through consumer analysis 2.3 Conduct consumer/market analysis	TLE_EM9-I0-2
LESSON 3: INSTALLING COMPUTER SYSTEMS AND NETWORKS (CN)				
1. OHS policies and procedures 2. Occupational Health and Safety laws 3. Personal safety 4. Workplace hazards 5. Environment laws 6. Computer Peripherals/ Devices /Systems 7. Personal computer systems and devices 8. Peripherals 9. Networking devices 10. Tools, equipment and testing devices	The learner demonstrates understanding of planning, installing and testing computer systems and networks.	The learner independently demonstrates the correct planning, installing and testing of computer systems and networks.	LO 1. Plan and prepare for installation 1.1 Observe OHS policies and procedures in planning for installation activity in accordance with requirements 1.2 Familiarize oneself with computer peripheral/ devices/systems in accordance with established procedures correct operation and safety 1.3 Consult appropriate/ technical personnel to ensure that work is coordinated with others who are involved in the activity 1.4 Determine the location of the devices/systems to be used 1.5 Obtain materials necessary to complete the work in accordance with established procedures	TLE ICTCS9CN-Ia-1

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
procedures			being isolated using specified testing procedures 3.3 Test devices, systems and/or installation to determine its conformity with the requirements 3.4 Undertake final inspections on the installed devices, systems to ensure conformity with the requirement 3.5 Accomplish technical reports on the tests conducted 3.6 Follow procedures in forwarding documentation to appropriate personnel and/or authority on the test conducted	
LESSON 4: DIAGNOSING AND TROUBLESHOOTING COMPUTER SYSTEMS (DT)				
1. Safety precautions 2. Types of computer systems errors 3. Diagnosing computer systems 4. Manual diagnosis 5. Software diagnosis	The learner demonstrates understanding of the underlying concepts and principles of diagnosing and troubleshooting computer systems.	The learner independently diagnoses and troubleshoots computer systems as prescribed by TESDA Training Regulations.	LO 1. Plan and prepare for diagnosis of computer systems errors 1.1 Follow OHS procedures in planning and preparing diagnosis of computer systems errors 1.2 Determine the computer systems errors using manual and software diagnosis	TLE_ICTCS9DT-IIIa-g-1
6. Safety precautions 7. Basic concepts of Electricity 8. Techniques for diagnosing computer systems 9. Diagnosing tools: 9.1 Manual 9.2 Software 10. Computer systems and network configurations			LO 2. Diagnose and configure computer systems and networks 2.1 Follow OHS procedures in planning and preparing diagnosis of computer systems and network errors 2.2 Identify the diagnosed computer systems and	TLE_ICTCS9DT-III f-j-2

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			network errors based on the job requirements 2.3 Configure computer systems and networks	
11. Safety precautions 12. Determining defective components 13. Repairing/replacing different components 13.1 Wiring techniques 13.2 Power supplies 14. Basic networking errors			LO 3. Inspect and test the configured computer systems and networks 3.1 Follow OHS procedures in inspecting and testing configured computer systems and networks 3.2 Inspect configured computer systems and networks 3.3 Replace defective components 3.4 Reinstall defective computer systems 3.5 Identify network errors 3.6 Repair network errors based on standard procedures 3.7 Test the configured computer systems and networks	TLE ICTCS9DT-IVa-g-3
15. Safety precautions 16. Guidelines for testing computer systems and networks			LO 4. Test Systems and Networks 4.1 Follow OHS procedures in testing systems and networks 4.2 Test computer systems and networks in accordance with the job requirements 4.3 Accomplish technical reports on the tests conducted	TLE ICTCS9DT-IVh-j-3

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY LIVELIHOOD EDUCATION
INFORMATION AND COMMUNICATIONS TECHNOLOGY - COMPUTER HARDWARE SERVICING**

Grade 10 (Specialization)

Prerequisite: Grade 9 Computer Hardware Servicing

Course Description:

This is a specialization course which leads to a **Computer Hardware Servicing** National Certificate Level II (NC II). It covers two core competencies that a **Grade 10** Technology and Livelihood Education (TLE) student ought to possess: 1) configuring computer systems and networks; and 2) maintaining computer systems and networks.

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
<p>Introduction</p> <ol style="list-style-type: none"> 1. Relevance of the course 2. Basic concepts in Computer Hardware Servicing 3. Career opportunities 	The learner demonstrates understanding of basic concepts and underlying theories in configuring and maintaining computer systems and networks.	The learner independently demonstrates competencies in configuring and maintaining computer systems and networks as prescribed by TESDA Training Regulations.	<ol style="list-style-type: none"> 1. Discuss the relevance of the course 2. Explore opportunities in computer hardware servicing as a career 3. Explain basic concepts in computer hardware servicing 	
LESSON 1: PERSONAL ENTREPRENEURIAL COMPETENCIES - PECs (PC)				
<ol style="list-style-type: none"> 1. Assessment of Personal Competencies and Skills (PECs) vis-à-vis those 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 PECs in relation to a practitioner 3. Application of PECs to the chosen business/career 	The learner demonstrates understanding of one's PECs in computer hardware servicing.	The learner independently creates a plan of action that strengthens/ further develops one's PECs in computer hardware servicing.	<p>LO 1. Develop and strengthen PECs needed in Computer Hardware Servicing</p> <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_PECs10-I0-1
LESSON 2: ENVIRONMENT AND MARKET (EM)				
<ol style="list-style-type: none"> 1. Product Development 2. Key concepts of developing a product 3. Finding Value 4. Innovation <ol style="list-style-type: none"> 4.1 Unique Selling Proposition (USP) 	The learner demonstrates understanding of environment and market in computer hardware servicing in one's town/municipality.	The learner independently creates a business vicinity map reflective of the potential computer hardware servicing market in one's town/municipality.	<p>LO 1. Develop a product/service in computer hardware servicing</p> <ol style="list-style-type: none"> 4.1 Identify what is of "value" to the customer 4.2 Identify the customer to sell to 	TLE_EM10-I0-1

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			4.3 Explain what makes a product unique and competitive 4.4 Apply creativity and innovative techniques to develop marketable product 4.5 Employ a Unique Selling Proposition (USP) to the product/service	
5. Selecting a Business Idea 6. Key concepts in selecting a business Idea 6.1 Criteria 6.2 Techniques			LO 2. Select a business idea based on the criteria and techniques set 2.1 Enumerate various criteria and steps in selecting a business idea 2.2 Apply the criteria/steps in selecting a viable business idea 2.3 Determine a business idea based on the criteria/techniques set	TLE_EM10-I0-2
7. Branding			LO 3. Develop a brand for the product 3.1 Identify the benefits of having a good brand 3.2 Enumerate recognizable brands in the town/province 3.3 Enumerate the criteria for developing a brand 3.4 Generate a clear appealing product brand	TLE_EM10-I0-3
LESSON 3: CONFIGURING COMPUTER SYSTEMS AND NETWORKS (CC)				
1. Safety procedures 2. Inspecting work instructions according to job requirements 3. Planning and preparing of standard operating procedures 4. Procedures in using the tools and equipment	The learner demonstrates understanding of the underlying concepts and principles in configuring computer systems and networks.	The learner independently demonstrates skills in configuring computer systems and networks as prescribed by TESDA Training Regulations.	LO 1. Plan and prepare for configuration 1.1 Follow OHS in planning and preparing for configuration of computer systems and networks 1.2 Prepare computer systems, tools, devices, equipment and materials	TLE_ICTCS10CC-Ia-c-1

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
LESSON 4: MAINTAINING COMPUTER AND NETWORK SYSTEMS (MN)				
<ol style="list-style-type: none"> 1. Safety procedures 2. Procedures in planning and conducting maintenance 3. Identification and diagnoses of faulty computer and networks systems 4. Tools and tests equipment 5. PC specifications 6. Network functions and specifications 	The learner demonstrates understanding of the underlying concepts and principles in maintaining computer and networks systems.	The learner independently demonstrates skills in computer and network systems as prescribed by TESDA Training Regulations.	<p>LO 1. Plan and prepare for the maintenance of computer systems and networks</p> <ol style="list-style-type: none"> 1.1 Follow OHS procedures in maintaining computer systems and networks 1.2 Plan on how to maintain computer and networks systems 1.3 Identify faulty computer and networks systems 1.4 Identify tools in maintaining computer and network systems 1.5 Inspect testing equipment/devices 1.6 Check PC specifications 1.7 Verify network functions and specifications 	TLE_ICTCS10MN-IIIa-e-1
<ol style="list-style-type: none"> 7. Safety procedures 8. Diagnosis and identification of faulty systems 9. Diagnostics software 10. Repair or replace faulty system 11. Maintenance of computer systems <ol style="list-style-type: none"> 11.1 Procedures in cleaning hardware components 11.2 Defragment 11.3 Scandisk 11.4 Delete temporary files 11.5 Uninstall unused Programs 			<p>LO 2. Maintain computer systems</p> <ol style="list-style-type: none"> 2.1 Follow OHS procedures in maintaining computer systems 2.2 Identify faulty computer systems 2.3 Test normal functions of computer systems 2.4 Perform repair and replacement of faulty computer systems 2.5 Adhere to the recommended schedule and techniques in maintaining and cleaning computer systems 2.6 Respond to sudden breakdowns of computer systems in accordance with established procedures 	TLE_ICTCS10MN-III f-j-2

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
12. Safety procedures 13. Procedures in maintaining network systems 14. Diagnostics software 15. Repair or replace faulty systems and cables 16. Burn-in test computer system			LO 3. Maintain network systems 3.1 Follow OHS procedures in maintaining network systems 3.2 Identify procedures in maintaining network systems 3.3 Check or run the diagnostic software 3.4 Adhere to the recommended schedule and techniques in maintaining and cleaning network systems 3.5 Respond to sudden breakdowns of network systems in accordance with established procedures 3.6 Run the burn-in test on computer systems	TLE_ICTCS10MN-IVa-e-3
17. Safety procedures 18. Maintenance of computer systems and networks 19. Computer communications 20. Internet connectivity 21. Burn-in test repaired computer systems and networks 22. Documentation of tasks			LO 4. Inspect and test configured/repaired computer systems and networks 4.1 Follow OHS procedures in maintaining network systems 4.2 Maintain the computer systems and networks to ensure safe operations 4.3 Run or conduct computer to computer communications 4.4 Connect computer systems to the internet 4.5 Check computer systems and network to ensure safe operation 4.6 Run the burn-in test on computer systems 4.7 Conduct final inspection on	TLE_ICTCS10MN-IVf-j-4

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			the tests undertaken 4.8 Prepare technical reports that comply with job requirements	

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY LIVELIHOOD EDUCATION
INFORMATION AND COMMUNICATIONS TECHNOLOGY – COMPUTER HARDWARE SERVICING
GLOSSARY**

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY LIVELIHOOD EDUCATION
INFORMATION AND COMMUNICATIONS TECHNOLOGY – COMPUTER HARDWARE SERVICING**

Code Book Legend

Sample: TLE_HETL12MT-IVj-16

LEGEND		SAMPLE	
First Entry	Learning Area and Strand/ Subject or Specialization	Technology and Livelihood Education_ Information and Communications Technology Computer Hardware Servicing	TLE_ ICT CS 10
	Grade Level	Grade 12	
Uppercase Letter/s	Domain/Content/ Component/ Topic	Maintaining Computer Networks and Systems	MN
			-
Roman Numeral <i>*Zero if no specific quarter</i>	Quarter	Fourth Quarter	IV
Lowercase Letter/s <i>*Put a hyphen (-) in between letters to indicate more than a specific week</i>	Week	Week Six to Ten	f-j
			-
Arabic Number	Competency	Inspect and test configured/repaired computer systems and networks	4

DOMAIN/ COMPONENT	CODE
Personal Entrepreneurial Competencies	PECS
Environment and Market	EM
Use of Hand Tools and Equipment	UT
Maintain Hand Tools, Equipment, and Paraphernalia	MT
Perform Mensuration and Calculation	MC
Prepare and Interpret Technical Drawing	ID
Practice Occupational Health and Safety Procedures	OS
Installing Computer Systems and Networks	CN
Diagnosing and Troubleshooting Computer Systems	DT
Configuring Computer Systems and Networks	CC
Maintaining Computer and Network Systems	MN



Illustration

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INFORMATION AND COMMUNICATIONS TECHNOLOGY – ILLUSTRATION
Grade7/8 (Exploratory)**

Course Description:

This is an exploratory and introductory course that leads to an **Illustration** National Certificate Level II (NC II). It covers **five (5)** common competencies that a **Grade7/8** Technology and Livelihood Education (TLE) student ought to possess, namely: 1) use of tools; 2) maintaining tools, equipment, and paraphernalia; 3) performing mensuration and calculation; 4) interpreting technical drawing and design; and 5) practicing Occupational Health and Safety (OHS) procedures.

The preliminaries of this exploratory course include the following: 1) discussion of 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 1. Relevance of the course 2. Basic concepts and common competencies in Illustration 3. Career opportunities	The learners demonstrate an understanding of basic concepts, underlying theories and common competencies in Illustration.	The learners shall be able to independently create/provide quality and marketable product and/or service in Illustration as prescribed by the TESDA Training Regulations	<i>The learners...</i> 1. Discuss the relevance of the course 2. Explain basic concepts, theories, and common competencies in Illustration 3. Explore opportunities for Illustration as a career	
LESSON 1: PERSONAL ENTREPRENEURIAL COMPETENCIES (PECS)				
1. Assessment of Personal Entrepreneurial Competencies and Skills (PECs) vis-à-vis a practicing entrepreneur/employee 1.1 Characteristics 1.2 Attributes 1.3 Lifestyle 1.4 Skills 1.5 Traits 2. Analysis of PECs in relation to a practitioner	The learners demonstrate an understanding of one's PECs	The learners shall be able to recognize his/her PECs and prepare an activity plan that aligns with that of a practitioner/entrepreneur in Illustration	LO 1. Recognize PECs needed in Illustration 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 PECs with those of a practitioner /entrepreneur 1.4 Align one's PECs with those of a practitioner/entrepreneur	TLE_PECs7/8-00-1
LESSON 2: ENVIRONMENT AND MARKET (EM)				
1. Key concepts of Environment and Market 2. Products and services available in the market 3. Differentiation of products and services 4. Customers and their buying habits	The learners demonstrate an understanding of environment and market as these relate to a career choice in Illustration	The learners shall be able to generate a business idea based on the analysis of environment and market in Illustration	LO 1. Generate a business idea that relates with a career choice in Illustration 1.1 Conduct SWOT analysis 1.2 Identify the different products/services available in the market 1.3 Compare different	TLE_ EM7/8-00-1

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
5. Competition in the market 6. SWOT Analysis			products/services in Illustration business 1.4 Determine the profile potential customers 1.5 Determine the profile potential competitors 1.6 Generate potential business idea based on the SWOT analysis	
LESSON 3: USE OF HAND TOOLS (UT)				
1. Hand tools in Illustration 2. Equipment in Illustration	The learners demonstrate an understanding of hand tools and equipment in Illustration	The learners shall be able to use hand tools and equipment in Illustration	LO 1. Prepare hand tools and equipment in Illustration 1.1 List hand tools and equipment based on job requirement 1.2 Identify appropriate hand tools and equipment 1.3 Classify hand tools and equipment according to function and task requirement	TLE ICTIL7/8UT-0a-1
LESSON 4: MAINTAIN HAND TOOLS, EQUIPMENT, AND PARAPHERNALIA (MT)				
1. Safety procedures in maintaining hand tools, drawing instruments, equipment, and paraphernalia 2. Procedure in accomplishing forms: 2.1 Job order slips 2.2 Tools and materials requisition slips 2.3 Borrower's slip 3. Requisition procedures 4. Inspection procedures 4.1 Malfunction tools 4.2 Maintenance of tools 5. Storage of tools 6. Standard operational procedures, principles and techniques in maintaining a tools	The learners demonstrate an understanding of concepts and principles in maintaining hand tools, drawing instruments, equipment, and paraphernalia	The learners shall be able to maintain hand tools, drawing instruments, equipment, and paraphernalia	LO 1. Inspect hand tools and equipment received in Illustration 1.1 Check list of tools and equipment to be requested per job requirement 1.2 Inspect the condition of all the requested tools and equipment 1.3 Assess the hand tools and equipment for proper operation and safety LO 2. Use and maintain hand tools, measuring instrument and equipment 2.1 Perform safety procedures in using hand tools and equipment 2.2 Follow procedures in cleaning illustration tools 2.3 Identify malfunction, unplanned or unusual events and report to property custodian	TLE ICTIL7/8MT-0b-1 TLE ICTIL7/8MT-0c-2

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
LESSON 5: PERFORM MENSURATION AND CALCULATION (MC)				
1. Measuring instruments/ Measuring tools 2. Proper handling of measuring instruments	The learners demonstrate an understanding of concepts and principles in performing measurement and calculation	The learners shall be able to perform accurate measurement and calculation based on a given task	LO 1. Select measuring instruments 1.1 Interpret object or component to be measured according to the appropriate regular geometric shape 1.2 Select measuring tools appropriate to the object to be measured based on job requirements 1.3 Obtain correct specification from relevant sources 1.4 Select appropriate measuring instruments according to job requirements 1.5 Use alternative measuring tools without sacrificing cost and quality of work	TLE ICTIL7/8MC-0d-1
3. Trade Mathematics/Mensuration 3.1 Four fundamental operations 3.2 Kinds of measurement 3.3 Dimensions 3.4 Ratio and proportion 3.5 Trigonometric functions 3.6 Algebraic equations 3.7 Fractions, percentage and decimals 3.8 Conversion			LO 2. Carry out mensuration and calculation 2.1 Perform calculation needed to complete task using the four mathematical fundamental operations (addition, subtraction, multiplication, and division) 2.2 Employ different techniques in checking for the accuracy of the computation	TLE ICTIL7/8MC-0e-2
LESSON 6: PREPARE AND INTERPRET TECHNICAL DRAWING (TD)				
1. Drawing symbols, signs, and data 2. Trade mathematical conversions	The learners demonstrate an understanding of concepts and principles in interpreting technical drawings and work plans in technical drafting	The learners shall be able to read and interpret technical drawings and work plans accurately	LO 1. Analyze signs, symbols, and data 1.1 Prepare tools and instruments used in illustration 1.2 Interpret signs, symbols, and data according to job	TLE ICTIL7/8TD-0f-1

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			specifications 1.3 Perform simple trade mathematical conversions	
3. Basic illustration 4. Technical plans and schematic diagram 5. Symbols and abbreviations			LO 2. Interpret illustration drawings and plans 2.1 Identify illustration tools and materials to be used in preparing a simple illustration 2.2 Identify dimensions and specifications according to job requirements	TLE_ICTIL7/8TD-0g-2
LESSON 7: PRACTICE OCCUPATIONAL HEALTH AND SAFETY PROCEDURE (OS)				
1. Safety procedures 2. Identification of hazards, risks, and control 2.1 For users and technicians 2.2 Damage equipment 2.3 Environment 3. Organizational safety and health protocol 4. OHS indicators	The learners demonstrate an understanding of concepts and principles of Occupational Health and Safety (OHS) in relation to health and risk hazards in the workplace	The learners shall be able to consistently observe precautionary measures and responds to risks and hazards in the workplace	LO 1. Identify hazards and risks 1.1 Follow OHS policies and procedures in identifying hazards and risks 1.2 Explain hazards and risks in the workplace 1.3 Identify hazards and risks indicators as prescribed by the manufacturer 1.4 Apply contingency measures in accordance with OHS procedures	TLE_ICTIL7/8OS-0h-1
5. Safety regulations in the work place 6. Methods of controlling hazards and risks 7. Disaster preparedness and management			LO 2. Evaluate and control hazards and risks 2.1 Determine the effects of hazards in the workplace 2.2 Identify the methods in controlling hazards and risks 2.3 Follow OHS procedures for controlling hazards and risks	TLE_ICTIL7/8OS-0i-2
8. OHS procedure, practices, and regulations 9. Emergency-related drills and training			LO 3. Maintain Occupational Health and Safety 3.1 Observe established procedures in responding to emergency-related drill 3.2 Fill up OHS personal records in accordance with workplace requirements	TLE_ICTIL7/8OS-0j-3

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INFORMATION AND COMMUNICATIONS TECHNOLOGY – ILLUSTRATION
Grade 9 (Specialization)**

Course Description:

This is a specialization course that leads to an **Illustration** National Certificate Level II (NC II). It covers **three (3)** core competencies that a Grade **9** Technology and Livelihood Education (TLE) student ought to possess, namely: 1) using lines to produce volumes, 2) creating drawings according to proportion, and 3) sourcing out of concept for own drawings.

The preliminaries of this specialization course include the following: 1) discussion of 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
<p>Introduction</p> <ol style="list-style-type: none"> 1. Relevance of the course 2. Concepts and core competencies in Illustration 3. Career opportunities 	The learners demonstrate an understanding of concepts, theories, and core competencies in Illustration	The learners shall be able to demonstrate competencies in Illustration as prescribed by the TESDA Training Regulations	<p><i>The learners...</i></p> <ol style="list-style-type: none"> 1. Discuss the relevance of the course 2. Explain concepts, theories, and core competencies in Illustration 3. Explore opportunities for a career as Illustrator 	
LESSON 1: PERSONAL ENTREPRENEURIAL COMPETENCIES (PECS)				
<ol style="list-style-type: none"> 1. Assessment of Personal Competencies and Skills (PECs) vis-à-vis a practicing entrepreneur/ employee in locality/town <ol style="list-style-type: none"> 1.1 Characteristics 1.2 Attributes 1.3 Lifestyle 1.4 Skills 1.5 Traits 2. Analysis of PECs in relation to a practitioner 3. Align, strengthen and develop ones PECs based on the results 	The learners demonstrate an understanding of one's PECs in Illustration	The learners shall be able to recognize his/her PECs and prepare an activity plan that aligns with that of a practitioner/entrepreneur in Illustration	<p>LO 1. Recognize PECs needed in Illustration</p> <ol style="list-style-type: none"> 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 PECs with that of a practitioner/entrepreneur 1.4 Align one's PECs with that of a practitioner/entrepreneur 	TLE_PECs9-I0-1
LESSON 2: ENVIRONMENT AND MARKET (EM)				
<ol style="list-style-type: none"> 1. Market (Town) 2. Key concepts of Market 3. Players in the market (Competitors) 4. Products and services available in the market 	The learners demonstrate an understanding of environment and market in Illustration in one's town/municipality	The learners shall be able to create a business vicinity map reflective of potential market in Illustration business within a town/municipality	<p>LO 1. Recognize and understand the market in Illustration</p> <ol style="list-style-type: none"> 1.1 Identify the players/competitors within the town 1.2 Identify the different products/ services available in the market 	TLE_EM9-I0-1

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
5. Market (Customer) 6. Key concepts of identifying and understanding the consumer 7. Consumer Analysis through: 7.1 Observation 7.2 Interviews 7.3 FGD 7.4 Survey			LO 2. Recognize the potential customer/market in Illustration 2.1 Identify the profile of potential customers 2.2 Identify the customer’s needs and wants through consumer analysis 2.3 Conduct consumer/market analysis	TLE_EM9-I0-2
LESSON 3: USING LINES TO PRODUCE VOLUMES (PV)				
1. Safety procedures 2. Tools and materials in drawing 3. Functions of lines 4. Drawing of basic shapes using lines 5. Lines in producing illusion of volumes	The learners demonstrate an understanding of concepts and principles of using lines to produce volume	The learners shall be able to apply techniques in producing volumes using lines, as prescribed by the TESDA Training Regulations	LO 1. Draw basic shapes with illusion of volumes 1.1 Perform safety procedures in drawing basic shapes with illusion of volumes 1.2 Identify drawing tools and materials used in illustration 1.3 Select appropriate materials in accordance with illustration requirements 1.4 Draw basic shapes using lines 1.5 Explain the functions of lines in drawing 1.6 Draw lines in producing illusion of volumes	TLE ICTIL9PV-Ia-e-1
6. Safety procedures 7. Drawing figures and objects 8. Elements of design 9. Proper proportions of figures and objects			LO 2. Draw figures and objects from basic shapes 2.1 Perform safety procedures in drawing figures and objects from basic shapes 2.2 Identify appropriate drawing tools and materials in accordance with illustration requirements 2.3 Follow the elements of designs in drawing figures and objects 2.4 Apply the correct proportions	TLE ICTIL9PV-If-j2

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			when drawing figures and objects 2.5 Derive figures and objects from basic shapes	
LESSON 4: CREATING DRAWINGS ACCORDING TO PROPORTION (DP)				
1. Safety procedures 2. Importance of proportion in drawing 3. Correct proportion in drawing 4. Layout of figures and objects according to requirement	The learners demonstrate an understanding of concepts and principles in creating drawings according to proportion	The learners shall be able to create drawing of figures and objects applying proportion as prescribed by the TESDA Training Regulations	LO 1. Draw basic shapes in proportion with illustration requirement 1.1 Perform safety procedures in drawing basic shapes in proportion with illustration requirements 1.2 Identify appropriate tools and materials in accordance to illustration requirement 1.3 Observe the importance of proportion in drawing 1.4 Explain the proper proportion in drawing 1.5 Layout figures and objects according to illustration requirement	TLE_ICTIL9DP-IIa-j-1
5. Safety procedures 6. Proper proportions of figures and objects 7. Isometric drawing 8. Enhancement of drawings 8.1 Tonal range 8.2 Linear marks 9. Illustration cleanup			LO 2. Draw figures and objects in proportion with illustration requirement 2.1 Perform safety procedures in drawing figures and objects in proportion with illustration requirements 2.2 Identify appropriate drawing tools and materials in accordance to illustration requirements 2.3 Draw isometric objects 2.4 Enhance drawing using toner range and linear marks 2.5 Clean up illustration	TLE_ICTIL9DP-IIIa-j-2

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
10. Safety procedures 11. Basic shapes in human figures 12. Importance of proper proportions in drawing human figure 13. Drawing correct proportion of human figures 14. Layouting human figures Facial expressions and movement of body parts			LO 3. Draw human figures 1.1 Perform safety procedures in drawing human figures 1.2 Identify appropriate tools and materials in drawing human figures in accordance with the illustration requirement 1.3 Draw human figures following proper proportion 1.4 Layout human figures 1.5 Draw different facial expressions and body parts movements of human figures	TLE_ICTIL9DP-IIIa-j-3
LESSON 5: SOURCING-OUT CONCEPT FOR OWN DRAWINGS (SD)				
1. Safety procedures 2. Collecting, organizing, and reviewing information 3. Interpreting concepts 4. Intellectual Property Rights (IPR) issues	The learners demonstrate an understanding of concepts and principles in sourcing out concept for own drawings	The learners shall be able to perform and develop own drawings based on sourced-out concepts as prescribed by the TESDA Training Regulations	LO 1. Source out concepts for own drawings 1.1 Perform safety procedures in sourcing out concept for one's drawings 1.2 Identify sources of information and relevant ideas to enrich one's own concept in drawings 1.3 Collect sources of information and relevant ideas for one's own concept in drawings 1.4 Interpret concept generated from drawings 1.5 Abide with IPR Laws when developing concept for own drawing 1.6 Reference collected information that helped in the development of the drawing	TLE_ICTIL9SD-IVa-e-1
5. Elements and Principles of Design 6. Theoretical and Historical Concepts of Drawings			LO 2. Review information for application to own work 2.1 Review information used to	TLE_ICTIL9SD-IVf-j-2

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
7. Designing a concept			clarify ideas for the concept 2.2 Consider theoretical concepts in one's drawing 2.3 Choose the final concept based on the sourced-out information 2.4 Apply elements and principles of design in one's own work	

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INFORMATION AND COMMUNICATIONS TECHNOLOGY – ILLUSTRATION
Grade 10 (Specialization)**

Prerequisite: Grade 9 Illustration

Course Description:

This is a specialization course that leads to an **Illustration** National Certificate Level II (NC II). It covers **two (2)** core competencies that a Grade **10** Technology and Livelihood Education (TLE) student ought to possess, namely: 1) using drawing techniques to represent the object of idea; and 2) preparing, storing, and maintaining finished work.

The preliminaries of this specialization course include the following: 1) discussion of 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
<p>Introduction</p> <ol style="list-style-type: none"> 1. Relevance of the course 2. Concepts and core competencies in Illustration 3. Career opportunities 	The learner demonstrates an understanding of concepts and theories of using drawing techniques to represent the object of idea and prepare, store, and maintain finished work in Illustration	The learners shall be able to independently create/provide quality and marketable product and/or service in Illustration as prescribed by the TESDA Training Regulations	<p><i>The learners...</i></p> <ol style="list-style-type: none"> 1. Discuss the relevance of the course 2. Explain concepts, theories, and competencies in Illustration 3. Explore opportunities for a career as Illustrator 	
LESSON 1: PERSONAL ENTREPRENEURIAL COMPETENCIES - PECs (PC)				
<ol style="list-style-type: none"> 1. Assessment of Personal Competencies and Skills (PECs) vis-à-vis 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 PECs in relation to a practitioner 3. Application of PECs to the chosen business/career 	The learners demonstrate an understanding of one's PECs in Illustration	The learners shall be able to create a plan of action that strengthens/further develops one's PECs in Illustration	<p>LO 1. Develop and strengthen PECs needed in Illustration</p> <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_PECs10-I0-1
LESSON 2: ENVIRONMENT AND MARKET (EM)				
<ol style="list-style-type: none"> 1. Product Development 2. Key concepts of developing a product 3. Finding Value 4. Innovation <ol style="list-style-type: none"> 4.1 Unique Selling 4.2 Proposition (USP) 	The learners demonstrate an understanding of the environment and market for Illustration in one's town/municipality	The learners shall be able to create a business vicinity map reflective of potential market for Illustration in the town/municipality.	<p>LO 1. Develop a product/service in Illustration</p> <ol style="list-style-type: none"> 1.1 Identify what is of "Value" to the customer 1.2 Identify the customer to sell to 1.3 Explain what makes a 	TLE_EM10-I0-1

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			product unique and competitive 1.4 Apply creativity and innovative techniques to develop marketable product 1.5 Employ a Unique Selling Proposition (USP) to the product/service	
5. Selecting Business Idea 6. Key concepts of selecting a business idea 6.1 Criteria 6.2 Techniques			LO 2. Select a business idea based on the criteria and techniques set 2.1 Enumerate various criteria and steps in selecting a business idea 2.2 Apply the criteria/steps in selecting a viable business idea 2.3 Determine a business idea based on the criteria/ techniques set	TLE_EM10-I0-2
7. Branding			LO 3. Develop a brand for the product 3.1 Identify the benefits of having a good brand 3.2 Enumerate recognizable brands in the town/ province 3.3 Enumerate the criteria for developing a brand 3.4 Generate a clear and appealing product brand	TLE_EM10-I0-3
LESSON 3: USING DRAWING TECHNIQUES TO REPRESENT OBJECT OR IDEA (DO)				
1. Safety measures 2. Drawing tools and materials	The learners demonstrate an understanding of concepts and principles in drawing techniques to represent object or idea	The learners shall be able to draw object or ideas using drawing techniques as prescribed by the TESDA Training Regulations	LO 1. Prepare for drawing 1.1 Perform safety procedures in drawing objects 1.2 Identify tools and materials required in drawing 1.3 Select appropriate tools and materials to represent object or idea in drawing	TLE ICTIL10DO-Ia-e-1
3. Basic drawing techniques			LO 2. Use basic drawing	TLE ICTIL10DO-If-j-2

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
4. Introduction to graphic software 5. Digital drawing 6. Proper usage and maintenance of drawing tools and materials			techniques 2.1 Perform safety procedures when using basic drawing techniques 2.2 Explore different graphic software 2.3 Apply a range of techniques to come up with interpretation of objects or ideas 2.4 Use tools and materials safely 2.5 Use digital methods in drawing	TLE_ICTIL10DO-IIa-j-2
LESSON 4: PREPARING FOR STORAGE AND MAINTENANCE OF FINISHED WORK (SM)				
1. Safety measures 2. Archival principles and values 3. Labeling and recording work	The learners demonstrate an understanding of concepts and principles in preparing for storage and maintenance of finished work	The learners shall be able to perform activities related to preparation for storage and maintenance of finished work as prescribed by the TESDA Training Regulations	LO1. Assess finished work for storage 1.1 Perform safety procedures in assessing finished work for storage 1.2 Determine the criteria for the selection of finished work to be stored following the storage requirements 1.3 Assess finished and selected work based on the identified criteria for storage 1.4 Determine the storage requirements for selected finished work based on the identified criteria	TLE_ICTIL10SM-IIIa-e-1
4. Safety procedures 5. Labeling and recording work 6. Safe storage requirements for the finished work			LO 2. Store finished work 2.1 Perform safety procedures when storing finished work 2.2 Select protective materials and conditions for storage 2.3 Organize finished work for storage 2.4 Apply protective materials	TLE_ICTIL10SM-IIIIf-j-2 TLE_ICTIL10SM-IVa-e2

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TECHNOLOGY AND LIVELIHOOD EDUCATION**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			on finished work before storing 2.5 Store finished works in allocated or selected storage space following company standard operating procedure and criteria	
7. Safety measures 8. Maintenance of finished work 9. Intellectual Property Rights (IPR) issues			LO 3. Maintain stored work 3.1 Perform safety procedures in maintaining stored work 3.2 Maintain accurate and complete records of stored finished work 3.3 Monitor and evaluate the condition of stored finished work in accordance with the requirements for different types of work	TLE_ICTIL10SM-IVf-j-3

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INFORMATION AND COMMUNICATIONS TECHNOLOGY – ILLUSTRATION
GLOSSARY**

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INFORMATION AND COMMUNICATIONS TECHNOLOGY – ILLUSTRATION**

Code Book Legend

Sample: TLE_ICTIL10SM-IVf-j-3

LEGEND		SAMPLE	
First Entry	Learning Area and Strand/ Subject or Specialization	Technology and Livelihood Education_ Information and Communications Technology Illustration	TLE_ ICT IL 10
	Grade Level	Grade 10	
Uppercase Letter/s	Domain/Content/ Component/ Topic	Preparing for Storage and Maintenance of Finished Work	MT
			-
Roman Numeral <i>*Zero if no specific quarter</i>	Quarter	Fourth Quarter	IV
Lowercase Letter/s <i>*Put a hyphen (-) in between letters to indicate more than a specific week</i>	Week	Week Six to Ten	f-j
			-
Arabic Number	Competency	Maintain Stored Work	3

DOMAIN/ COMPONENT	CODE
Personal Entrepreneurial Competencies	PECS
Environment and Market	EM
Use of Hand Tools and Equipment	UT
Maintain Hand Tools, Equipment, and Paraphernalia	MT
Perform Mensuration and Calculation	MC
Prepare and Interpret Technical Drawing	TD
Practice Occupational Health and Safety Procedures	OS
Using Lines to Produce Volume	PV
Using Drawing Techniques to Represent Object or Idea	DO
Preparing for Storage and Maintenance of Finished Work	SM



Technical Drafting

K to 12 BASIC EDUCATION CURRICULUM
SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK
INFORMATION AND COMMUNICATIONS TECHNOLOGY – TECHNICAL DRAFTING
Grade 7/Grade 8 (Exploratory)

Course Description:

This is an exploratory and introductory course that leads to a **Technical Drafting** National Certificate Level II (NC II). It covers **five (5)** common competencies that a **Grade 7/Grade 8** Technology and Livelihood Education (TLE) student ought to possess, namely: 1) use of tools and equipment; 2) maintaining tools, drawing instruments, equipment, and paraphernalia; 3) performing mensuration and calculation; 4) interpreting technical drawing and plans; and 5) practicing Occupational Health and Safety (OHS) procedures.

The preliminaries of this exploratory course include the following: 1) discussion of 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 1. Relevance of the course 2. Basic concepts in Technical Drafting 3. Career opportunities	The learners demonstrate an understanding of basic concepts and theories in Technical Drafting	The learners shall be able to demonstrate common competencies in Technical Drafting as prescribed by the TESDA Training Regulations	<i>The learners...</i> 1. Discuss the relevance of the course 2. Explain basic concepts in Technical Drafting 3. Explore opportunities for a career in Technical Drafting	
LESSON 1: PERSONAL ENTREPRENEURIAL COMPETENCIES (PECS)				
1. Assessment of Personal Entrepreneurial Competencies and Skills (PECs) vis-à-vis a practicing entrepreneur/employee 1.1 Characteristics 1.2 Attributes 1.3 Lifestyle 1.4 Skills 1.5 Traits 2. Analysis of PECs in relation to a practitioner	The learners demonstrate an understanding of one's PECs.	The learners shall be able to recognize his/her PECs and prepares an activity plan that aligns with that of a practitioner/entrepreneur in Technical Drafting	LO 1. Recognize PECs needed in Technical Drafting 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 PECS with those of a practitioner/ entrepreneur 1.4 Align one's PECS with those of a practitioner/entrepreneur	TLE_PECS7/8-00-1

**K to 12 BASIC EDUCATION CURRICULUM
SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
LESSON 2: ENVIRONMENT AND MARKET (EM)				
<ol style="list-style-type: none"> 1. Key concepts in Environment and Market 2. Products and services available in the market 3. Differentiation of products and services 4. Customers and their buying habits 5. Competition in the market 6. SWOT Analysis 	The learners demonstrate an understanding of environment and market that relate with a career choice in Technical Drafting	The learners shall be able to generate a business idea based on the analysis of environment and market in Technical Drafting	<p>LO 1. Generate a business idea that relates with a career choice in Technical Drafting</p> <ol style="list-style-type: none"> 1.1 Conduct SWOT analysis 1.2 Identify the different products/services available in the market 1.3 Compare different products/services in Technical Drafting business 1.4 Determine the profile potential customers 1.5 Determine the profile potential competitors 1.6 Generate potential business idea based on the SWOT analysis 	TLE_EM7/8-00-1
LESSON 3: USE OF TOOLS AND EQUIPMENT (UT)				
<ol style="list-style-type: none"> 1. Hand tools in Technical Drafting 2. Equipment in Technical Drafting 	The learners demonstrate an understanding of hand tools and equipment in Technical Drafting	The learners shall be able to use hand tools and equipment in Technical Drafting	<p>LO 1. Prepare hand tools and equipment in technical drafting</p> <ol style="list-style-type: none"> 1.1 List hand tools and equipment based on job requirement 1.2 Identify appropriate hand tools and equipment 1.3 Classify hand tools and equipment according to function and task requirement 	TLE_ICTTD7/8UT-0a-1
LESSON 4: MAINTAIN HAND TOOLS, DRAWING INSTRUMENTS, EQUIPMENT AND PARAPHERNALIA (MT)				
<ol style="list-style-type: none"> 1. Safety procedures in maintaining hand tools, drawing instruments, equipment, and paraphernalia 2. Proper storage of tools 	The learners demonstrate an understanding of concepts and principles in maintaining hand tools, drawing instruments, equipment, and paraphernalia	The learners shall be able to maintain tools, drawing instruments, equipment, and paraphernalia	<p>LO 1. Maintain hand tools, drawing instruments, equipment, and paraphernalia</p> <ol style="list-style-type: none"> 1.1 Perform safety procedures in maintaining hand tools, drawing instruments, 	TLE_ICTTD7/8MT-0b-1

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SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
3. Procedures in cleaning, tightening and simple repair of hand tools, drawing instruments, equipment, and paraphernalia 4. Common malfunction when using hand tools, drawing instruments, equipment, and paraphernalia			equipment, and paraphernalia 1.2 Follow procedures in cleaning, tightening and simple repair of hand tools, drawing instruments, equipment, and paraphernalia 1.3 Identify common malfunction (unplanned or unusual events) when using tools, drawing instruments, equipment, and paraphernalia	
5. Procedures in accomplishing forms: 5.1 Job order slips 5.2 Requisition slips 5.3 Borrower's slip 6. Requisition procedures for hand tools, drawing instruments, equipment and paraphernalia 7. Inspection procedures for hand tools, drawing instruments, equipment, and paraphernalia			LO 2. Inspect hand tools, drawing instruments, equipment, and paraphernalia received in technical drafting 2.1 Follow the standard procedures in accomplishing forms 2.2 Check the list of hand tools, drawing instruments, equipment, and paraphernalia to be requested per job requirement 2.3 Evaluate the condition of all the requested hand tools, drawing instruments, equipment, and paraphernalia for proper operation and safety	TLE_ICTTD7/8MT-0c-d-2
8. Inspection report on 8.1 Malfunctioning tools 8.2 Repair of tools 8.3 Replacement of tools 8.4 Lost tools			LO 3. Prepare an inspection report of the hand tools, drawing instruments, equipment, and paraphernalia received in technical drafting 3.1 Follow procedures in preparing an inspection report to the property custodian	TLE_ICTTD7/8MT-0e-3

**K to 12 BASIC EDUCATION CURRICULUM
SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
LESSON 5: PERFORM MENSURATION AND CALCULATION (MC)				
<ol style="list-style-type: none"> 1. Different measuring instruments/measuring tools 2. Appropriate measuring instruments for a particular job requirements 3. Measuring different objects or components <ol style="list-style-type: none"> 3.1 Geometric shapes 4. Alternative measuring tools 	The learners demonstrate an understanding of concepts and principles in performing measurements and calculation	The learners shall be able to perform accurate measurements and calculation based on a given task.	LO 1. Select measuring instruments <ol style="list-style-type: none"> 1.1 Identify measuring tools based on the object to be measured or job requirements 1.2 Select appropriate measuring instruments according to job requirements 1.3 Interpret an object or component to be measured according to the appropriate regular geometric shapes 1.4 Use alternative measuring tools without sacrificing cost and quality of work 	TLE_ICTTD7/8MC-0f-1
<ol style="list-style-type: none"> 5. Trade Mathematics/ Mensuration 6. Four fundamental operations <ol style="list-style-type: none"> 6.1 Kinds of measurement 6.2 Dimensions 6.3 Ratio and proportion 6.4 Trigonometric functions 6.5 Algebraic equations 6.6 Fractions, percentages, and decimals 6.7 English to Metric Conversion (and vice versa) 			LO 2. Carry out mensuration and calculation <ol style="list-style-type: none"> 2.1 Perform calculation needed to complete task by applying trade mathematics/mensuration 2.2 Employ different techniques in checking for accuracy of the computation 	TLE_ICTTD7/8MC-0g-2
LESSON 6: PREPARE AND INTERPRET TECHNICAL DRAWING (TD)				
<ol style="list-style-type: none"> 1. Signs and symbols used in technical drawing 2. Technical drawing data <ol style="list-style-type: none"> 2.1 Elevation 2.2 Scale measurement 2.3 Dimension 2.4 Depth 2.5 Schedule of windows 	The learners demonstrate an understanding of concepts and principles in interpreting technical drawings and work plans	The learners shall be able to read and interpret technical drawings and work plans accurately	LO 1. Analyze signs, symbols, and data <ol style="list-style-type: none"> 1.1 Identify signs and symbols used in technical drawing 1.2 Analyze data indicated in the technical drawing 	TLE_ICTTD7/8TD-0h-1

**K to 12 BASIC EDUCATION CURRICULUM
SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
and doors				
3. Symbols of materials used in technical drawing 4. Components and assemblies used in technical plans and schematic diagram 5. Basic dimensioning and specifications requirements of a plan			LO 2. Interpret technical drawings and plans 2.1 Identify necessary materials according to the technical drawing 2.2 Recognize components, assemblies, or objects based on job requirements 2.3 Identify dimensions and specifications according to job requirements	TLE_ICTTD7/8MC-0i-2
LESSON 7: PRACTICE OCCUPATIONAL HEALTH AND SAFETY PROCEDURE (OS)				
1. Safety procedures 2. Identification of hazards, risks and control 2.1 for users and technicians 2.2 on damaged equipment 2.3 in the environment 3. Organizational safety and health protocol 4. OHS indicators	The learners demonstrate an understanding of concepts and underlying principles of Occupational Health and Safety (OHS) in relation to health and risk hazards in the workplace	The learners shall be able to consistently observe precautionary measures and respond to risks and hazards in the workplace	LO 1. Identify hazards and risks 1.1 Follow OHS policies and procedures in identifying hazards and risks 1.2 Explain hazards and risks in the workplace 1.3 Identify hazards and risks indicators as prescribed by the manufacturer 1.4 Apply contingency measures in accordance with the OHS procedures	TLE_ICTTD7/8OS-0j-1
5. Safety regulations in the workplace 6. Methods of controlling hazards and risks 7. Disaster preparedness and management			LO 2. Evaluate and control hazards and risks 2.1 Determine the effects of hazards in the workplace 2.2 Identify the methods in controlling hazards and risks 2.3 Follow OHS procedures for controlling hazards and risks	TLE_ICTTD7/8OS-0j-2
8. OHS procedure, practices, and regulations 9. Emergency-related drills and training			LO 3. Maintain Occupational Health and Safety 3.1 Observe established procedures in responding to	TLE_ICTTD7/8OS-0j-3

**K to 12 BASIC EDUCATION CURRICULUM
SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			emergency-related drill 3.2 Fill-up OHS personal records in accordance with SOP	

K to 12 BASIC EDUCATION CURRICULUM
SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK
INFORMATION AND COMMUNICATIONS TECHNOLOGY – TECHNICAL DRAFTING
Grade 9 (Specialization)

Course Description:

This is a specialization course that leads to a **Technical Drafting** National Certificate Level II (NC II). It covers five (5) core manual drafting competencies that a Grade 9 Technology and Livelihood Education (TLE) student ought to possess, namely: 1) architectural layout and details, 2) structural layout and details, 3) electrical and electronic layout and details, 4) sanitary and plumbing layout and details, and 5) mechanical layout and details.

The preliminaries of this specialization course include the following: 1) discussion of 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 1. Relevance of the course 2. Core concepts of Technical Drafting 3. Career opportunities	The learners demonstrate an understanding of basic concepts, theories, and core competencies in Technical Drafting	The learners shall be able to create/provide quality and marketable product and/or service in terms of Technical Drafting as prescribed by the TESDA Training Regulation	<i>The learners...</i> 1. Discuss the relevance of the course 2. Explain the core concepts of Technical Drafting 3. Explore job opportunities for a career in Technical Drafting	
LESSON 1: PERSONAL ENTREPRENEURIAL COMPETENCIES (PECS)				
1. Assessment of Personal Competencies and Skills (PECs) vis-à-vis a practicing entrepreneur/ employee in locality/town 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 one's PECs based on the results	The learners demonstrate an understanding of one's PECs in Technical Drafting	The learners shall be able to recognize his/her PECs and prepare an activity plan that aligns with that of a practitioner/entrepreneur in Technical Drafting	LO 1. Recognize PECs needed in Technical Drafting 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 PECs with those of a practitioner/entrepreneur 1.4 Align one's PECs with those of a practitioner/entrepreneur	TLE_PECS9-I0-1
LESSON 2: ENVIRONMENT AND MARKET (EM)				
1. Market (Town) 2. Key concepts of market players in the market (Competitors)	The learners demonstrate an understanding of environment and market in Technical Drafting in one's	The learners shall be able to create a business vicinity map reflective of potential Technical Drafting market in the	LO 1. Recognize and understand the market in Technical Drafting 1.1 Identify the players/	TLE_EM9-I0-1

**K to 12 BASIC EDUCATION CURRICULUM
SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
3. Products and services available in the market	locality/town	locality/town	competitors in the town 1.2 Identify the different products/services available in the market	
4. Market (Customer) 5. Key concepts of identifying and understanding the consumer 6. Consumer Analysis through: 7.1 Observation 7.2 Interviews 7.3 FGD 7.4 Survey			LO 2. Recognize the potential customer/market in Technical Drafting 2.1 Identify the profile of potential customers 2.2 Identify the customer's needs and wants through consumer analysis 2.3 Conduct consumer/market analysis	TLE_EM9-I0-2
LESSON 3: DRAFTING ARCHITECTURAL LAYOUT AND DETAILS (AL)				
1. Drafting tools, materials, and equipment 2. Industry Standards and Operating Procedures 3. Architectural 3.1 Job requirements 3.2 Electrical terms and symbols 3.3 Working drawings	The learners demonstrate an understanding of concepts and principles in the preparation of architectural layout and details	The learners shall be able to prepare architectural layout and details based on established industry and/or job requirements	LO 1. Prepare architectural job requirements 1.1 Prepare tools, materials, and equipment in technical drawing 1.2 Select drawing tools, materials, and equipment in accordance with the SOP 1.3 Assess architectural job requirements based on SOP 1.4 Interpret blueprint according to architectural layout drawing/job requirements following SOP and work instructions	TLE_ICTTD9AL-Ia-1
4. OHS policies and procedures laws 4.1 Personal safety 4.2 Workplace hazards 4.3 Environment laws 5. Setting up drawing equipment 6. Layouting drawings and details			LO 2. Prepare and set up tools and materials for drawing 2.1 Observe OHS policies and procedures in setting-up tools and materials for drawing 2.2 Prepare drawing tools, materials, and equipment based on job requirements	TLE_ICTTD9AL-Ib-2

**K to 12 BASIC EDUCATION CURRICULUM
SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			2.3 Set up tools, materials, and equipment based on the job requirements	
7. Theory and concepts of site development plan 7.1 Site Plans 7.2 Azimuth 7.3 Coordinate planes 8. Title block and borders 9. Alphabet of lines 10. Lettering 11. Notes and legends of architectural plans and standards 12. Layouting, dimensioning, and scaling 13. Grading conventions and symbols			LO 3. Draft site development plan 3.1 Draw a technical description of a lot according to the approved lot survey 3.2 Draw a building footprint according to the architectural drafting standards 3.3 Draw a title block according to the architectural drafting standards 3.4 Indicate dimension lines, dimensions, and drawing titles according to architectural drafting standards	TLE_ICTTD9AL-Ic-e-3
14. Floor plan features 15. Floor planning scale 16. Schedule of doors and windows 17. Architectural floor symbols			LO 4. Draft floor plans 4.1 Draw walls, windows, doors, fixtures, and fittings according to architectural design standards 4.2 Draw grid and dimension lines according to architectural design standards 4.3 Use metric scale system according to the magnitude of the plan 4.4 Identify sizes of doors, walls, and rooms following the schedule Indicate letterings and labels according to the drafting standards	TLE_ICTTD9AL-If-j-4

**K to 12 BASIC EDUCATION CURRICULUM
SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
18. Operational definition/ terminologies on roof plans 19. Roof parts and members 20. Architectural roof symbols 21. Sheet contents 22. Framing details			LO 5. Draft roof plans 5.1 Indicate the dimensions of the roof plan based on the floor plan 5.2 Draw roof plans according to drafting standards 5.3 Use standard architectural symbols in drafting roof plans 5.4 Layout drawings according to sheet contents 5.5 Draw framing details of roof plan according to architectural drafting standards	TLE_ICTTD9AL-IIa-c-5
23. Operational definition/ terminology on ceiling plans 24. Ceiling parts and members 25. Procedures in drafting ceiling plans			LO 6. Draft ceiling plans 6.1 Draw vertical heights from finish floor line to ceiling line according to architectural drafting standards 6.2 Indicate lighting fixtures and fire protection devices on the ceiling plan based on architectural drafting standards	TLE_ICTTD9AL-IIId-f-6
26. Operational definition/ terminology of elevations and sections 27. Architectural detailing and sectioning 28. Different house views and elevations 29. Detailing techniques			LO 7. Draft elevations and sections 6.1 Draw vertical heights from grade line according to architectural drafting standards 6.2 Project offsets from right, left, and rear sides of floor plan according to architectural drafting standards 6.3 Draw roof eaves and pitch on all elevations and sections according to	TLE_ICTTD9AL-IIg-i-7

**K to 12 BASIC EDUCATION CURRICULUM
SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			architectural drafting standards 6.4 Project doors and windows in all elevations and sections 6.5 Project cross and longitudinal section views from the floor plans and elevations 6.6 Indicate various material symbols and specifications in all elevations and sections	
26. Dimensions and markings 27. Company rules and regulations 28. Re-work procedures 29. Clean-up activities 30. Housekeeping			LO 8. Submit complete drawings 8.1 Follow the SOP when submitting the completed drawing to appropriate personnel (e.g., Engineer, Architect) 8.2 Note comments and corrections for final drawings following the SOP 8.3 Integrate comments and corrections into the final drawing based on job requirements 8.4 Perform housekeeping procedures following the SOP	TLE_ICTTD9AL-IIj-8
LESSON 4: DRAFTING STRUCTURAL LAYOUT AND DETAILS (SL)				
1. Definition of structural terms 2. Different structures and details 3. Structural drawing standards	The learners demonstrate an understanding of concepts and principles in drafting structural layout and details	The learners shall be able to draft structural layout and details following the job requirements	LO 1. Draft foundation plans 1.1 Indicate the locations of wall footings, footings, and columns in drafting the floor plan 1.2 Draw in a larger scale details of wall footings, footings, and columns	TLE_ICTTD9SL-IIIa-b-1
4. Operational definition/terminology of floors and roof framing plans			LO 2. Draft structural floors and roof framing plans 2.1 Draft structural floor and roof	TLE_ICTTD9SL-IIIc-e-2

**K to 12 BASIC EDUCATION CURRICULUM
SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
5. Structural drawing standards 5.1 timber 5.2 concrete 5.3 steel 6. Structural floor plans and standards 7. Roof-framing plan standards			framing plans based on floor and foundation plans using timber, concrete, or steel construction 2.2 Draft structural floor and roof beams showing sizes, shapes, and detailed connections	
LESSON 5: DRAFTING ELECTRICAL AND ELECTRONIC LAYOUT AND DETAILS (EL)				
1. Operational definition/terminology of electrical and electronic layout and details 2. Electrical drawing standards 3. Philippine Electrical Code 4. National Building Code 5. Fire Code	The learners demonstrate an understanding of concepts and principles in drafting electrical and electronic layout and details	The learners shall be able to draft electrical and electronic layout and details following the job requirements	LO 1. Draft electrical plans and layouts 1.1 Draft lighting and power layouts according to electrical drafting standards 1.2 Place riser diagram and circuiting symbols in electrical plans and layouts according to Electrical Code 1.3 Indicate legend and general notes according to local power service provider	TLE_ICTTD9EL-IIIif-g-1
6. Auxiliary systems equipment 7. Philippine Electrical Code 8. National Building Code 9. Fire Code			LO 2. Draft auxiliary system and layout 2.1 Layout fire alarm and protection system symbols in the auxiliary system and layout plan according to Fire Code 2.2 Layout electronic and communication devices according to electrical drafting requirements	TLE_ICTTD9EL-IIIh-j-2
LESSON 6: DRAFTING SANITARY AND PLUMBING LAYOUT AND DETAILS (SP)				
1. Plumbing Code 2. Plumbing fixtures and fittings 3. Plumbing symbols 4. National Building Code	The learners demonstrate an understanding of concepts and principles in drafting sanitary and plumbing	The learners shall be able to draft sanitary and plumbing layout and details following job requirements	LO 1. Draft water distribution system 1.1 Draft hot and cold water distribution systems	TLE_ICTTD9SP-IVa-b-1

**K to 12 BASIC EDUCATION CURRICULUM
SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
5. Clean Water Act	layout and details		according to Plumbing and Water Codes 1.2 Indicate signs and symbols according to sanitary and plumbing requirements	
			LO 2. Draft sanitary and storm drainage 2.1 Draw sewerage plan layout according to Plumbing Code 2.2 Draft storm drainage plan according to Plumbing Code 2.3 Draw details and symbols according to sanitary and plumbing requirements	TLE_ICTTD9SP-IVc-d-2
LESSON 7: DRAFTING MECHANICAL LAYOUT AND DETAILS (ML)				
1. Mechanical Code 2. National Building Code 3. Heating, ventilating, and air-conditioning (HVAC) layout standards 4. Conveyor system standards	The learners demonstrate an understanding of concepts and principles in drafting mechanical layout and details	The learners shall be able to draft mechanical layout and details following job requirements	LO 1. Draft heating, ventilating, and air-conditioning systems layout 1.1 Draft HVAC systems according to Mechanical Code 1.2 Indicate signs and symbols according to mechanical layout and detail requirements	TLE_ICTTD9ML-IVe-f-1
			LO 2. Draft mechanical details of conveyor system 2.1 Draw elevator, escalators, dumbwaiter, and moving ramp systems according to Mechanical Code 2.2 Draw details of mechanical conveyor system according to mechanical layout and detail requirements	TLE_ICTTD9ML-IVg-h-2
5. Fire Code 6. National Building Code 7. Fire protection equipment and			LO 3. Draft fire protection systems 3.1 Draw fire sprinkler system	TLE_ICTTD9ML-IVi-j-3

**K to 12 BASIC EDUCATION CURRICULUM
SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
installations			according to Fire Code 3.2 Draw signs and symbols of fire protection systems according to fire protection requirements	

K to 12 BASIC EDUCATION CURRICULUM
SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK
INFORMATION AND COMMUNICATIONS TECHNOLOGY – TECHNICAL DRAFTING
Grade 10 (Specialization)

Course Description:

Prerequisite: Grade 9 Technical Drafting

This is a specialization course that leads to a **Technical Drafting** National Certificate Level II (NC II). It covers five (5) core Computer-Aided Drawing (CAD) competencies that a **Grade 10** Technology and Livelihood Education (TLE) student ought to possess, namely: 1) preparing CAD, 2) laying out structural details, 3) laying out electrical and electronic details, 4) laying out sanitary and plumbing details, and 5) laying out mechanical details.

The preliminaries of this specialization course include the following: 1) discussion of 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 1. Relevance of the course 2. Core concepts of Computer-Aided Drawing (CAD) in Technical Drafting 3. Career opportunities	The learners demonstrate an understanding of basic concepts, theories, and core CAD competencies in Technical Drafting	The learners shall be able to create/provide quality and marketable product and/or service using CAD in Technical Drafting as prescribed by the TESDA Training Regulations	<i>The learners...</i> 1. Discuss the relevance of the course 2. Explain the core concepts CAD in Technical Drafting 3. Explore job opportunities for a career in Technical Drafting	
LESSON 1: PERSONAL ENTREPRENEURIAL COMPETENCIES (PECS)				
1. Assessment of Personal Competencies and Skills (PECs) vis-à-vis a practicing entrepreneur/employee in a 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. Application of PECs to the chosen business/career	The learners demonstrate an understanding of one's PECs in Technical Drafting	The learners shall be able to create a plan of action that strengthens/ further develops one's PECs in Technical Drafting	LO 1. Develop and strengthen PECs needed in Technical Drafting 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_PECs10-I0-1
LESSON 2: ENVIRONMENT AND MARKET (EM)				
1. Product development 2. Key concepts in developing a product 3. Finding value	The learners demonstrate an understanding of environment and market in Technical Drafting in one's	The learners shall be able to create a business vicinity map reflective of potential Technical Drafting market in one's	LO 1. Develop a product/ service in Technical Drafting 1.1 Identify what is of "Value" to the customer	TLE_EM10-I0-1

**K to 12 BASIC EDUCATION CURRICULUM
SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
4. Innovation 4.1 Unique Selling Proposition (USP)	province	province	1.2 Identify the customer to sell to 1.3 Explain what makes a product unique and competitive 1.4 Apply creativity and Innovative techniques to develop marketable product 1.5 Employ a Unique Selling Proposition (USP) to the product/service	
5. Selecting a business idea 6. Key concepts in Selecting a business idea 6.1 Criteria 6.2 Techniques			LO 2. Select a business idea based on the criteria and techniques set 2.1 Enumerate various criteria and steps in selecting a business idea 2.2 Apply the criteria/steps in selecting a viable business idea 2.3 Determine a business idea based on the criteria/techniques set	TLE_EM10-I0-2
7. Branding			LO 3. Develop a brand for the product 3.1 Identify the benefits of having a good brand 3.2 Enumerate recognizable brands in the town/province 3.3 Enumerate the criteria for developing a brand 3.4 Generate a clear and appealing product brand	TLE_EM10-I0-3
LESSON 3: PREPARING COMPUTER-AIDED DRAWING (CA)				
1. Basic CAD concepts 2. Operational definition/terminologies on floors and	The learners demonstrate an understanding of concepts and underlying	The learners shall be able to prepare CAD based on established industry and/or job	LO 1. Operate CAD software and computer hardware 1.1 Identify CAD software	TLE_ICTTD10CA-Ia-b-1

**K to 12 BASIC EDUCATION CURRICULUM
SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
roof framing plans 3. CAD working environment 4. CAD Features 4.1 Commands 4.2 Tools 4.3 Dimensions 4.4 Hardware 4.5 Manipulations 4.6 Plotting 4.7 Editing 4.8 Attributes 4.9 Object linking and embedding 4.10 Modifications	principles in the preparation of CAD.	requirements	features according to the software provider 1.2 Explore CAD working environment 1.3 Manipulate CAD features as per job requirement	TLE_ICTTD10CA-Ic-j-2
5. Occupational Health and Safety (OHS) policies and procedures OHS laws 5.1 Personal safety 5.2 Workplace hazards 5.3 Environment laws 6. Title block 7. Plates 8. Scale 9. Building standards			LO 2. Prepare plan using CAD 2.1 Observe OHS policies and procedures in when preparing plan using CAD 2.2 Set up drawings according to standard drawing scale and paper size 2.3 Prepare working drawings using CAD software as per building standards	TLE_ICTTD10CA-IIa-j-2
LESSON 4: DRAFTING STRUCTURAL LAYOUT AND DETAILS USING CAD (LC)				
1. Definition of structural terms 2. Different structures and details 3. Structural drawing standards	The learners demonstrate an understanding of concepts and principles in drafting structural layout and details	The learners shall be able to draft structural layout and details following the job requirements	LO 1. Draft foundation plans 1.1 Indicate the locations of wall footings, footings, and columns in drafting the floor plan 1.2 Draw on a larger scale details of wall footings, footings, and columns	TLE_ICTTD10LC-IIIa-b-1
4. Operational definition/terminology of floors and roof framing plans 5. Structural drawing standards			LO 2. Draft structural floors and roof framing plans 2.1 Draft structural floor and roof framing plans based	TLE_ICTTD10LC-IIIc-e-2

**K to 12 BASIC EDUCATION CURRICULUM
SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
5.1 timber 5.2 concrete 5.3 steel 6. Structural floor plans and standards 7. Roof-framing plan standards			on floor and foundation plans using timber, concrete, or steel construction 2.2 Draft structural floor and roof beams showing sizes, shapes, and detailed connections	
LESSON 5: DRAFTING ELECTRICAL AND ELECTRONIC LAYOUT AND DETAILS USING CAD (EC)				
1. Operational definition/terminology of electrical and electronic layout and details 2. Electrical drawing standards 3. Philippine Electrical Code 4. National Building Code 5. Fire Code	The learners demonstrate an understanding of concepts and principles in drafting electrical and electronic layout and details	The learners shall be able to draft electrical and electronic layout and details following the job requirements	LO 1. Draft electrical plans and layouts 1.1 Draft lighting and power layouts according to electrical drafting standards 1.2 Place riser diagram and circuiting symbols in electrical plans and layouts according to Electrical Code 1.3 Indicate legend and general notes according to local power service provider	TLE_ICTTD10EC-IIIIf-g-1
6. Auxiliary systems equipment 7. Philippine Electrical Code 8. National Building Code 9. Fire Code			LO 2. Draft auxiliary system and layout 2.1 Layout fire alarm and protection system symbols in the auxiliary system and layout plan according to Fire Code 2.2 Layout electronic and communication devices according to electrical drafting requirements	TLE_ICTTD10EC-IIIIf-h-2
LESSON 6: DRAFTING SANITARY AND PLUMBING LAYOUT AND DETAILS USING CAD (SC)				
1. Plumbing Code 2. Plumbing fixtures and fittings 3. Plumbing symbols 4. National Building Code	The learners demonstrate an understanding of concepts and principles in drafting sanitary and plumbing	The learners shall be able to draft sanitary and plumbing layout and details following the job requirements	LO 1. Draft water distribution system 1.1 Draft hot and cold water distribution systems	TLE_ICTTD10SC-IVa-1

**K to 12 BASIC EDUCATION CURRICULUM
SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
5. Clean Water Act	layout and details		according to Plumbing and Water Codes 1.2 Indicate signs and symbols according to sanitary and plumbing requirements	
			LO 2. Draft sanitary and storm drainage 2.1 Draw sewerage plan layout according to Plumbing Code 2.2 Draft storm drainage plan according to Plumbing Code 2.3 Draw details and symbols according to sanitary and plumbing requirements	TLE_ICTTD10SC-IVb-c-2
LESSON 7: DRAFTING MECHANICAL LAYOUT AND DETAILS USING CAD (DC)				
1. Mechanical Code 2. National Building Code 3. HVAC layout standards 4. Conveyor system standards	The learners demonstrate an understanding of concepts and principles in drafting mechanical layout and details	The learners shall be able to draft mechanical layout and details following job requirements	LO 1. Draft HVAC systems layout 1.1 Draft HVAC systems according to Mechanical Code 1.2 Indicate signs and symbols according to mechanical layout and detail requirements	TLE_ICTTD10DC-IVd-e-1
			LO 2. Draft mechanical details of conveyor system 2.1 Draw elevator, escalators, dumbwaiter, and moving ramp systems according to Mechanical Code 2.2 Draw details of mechanical conveyor system according to mechanical layout and detail requirements	TLE_ICTTD10DC-IVf-g-2

**K to 12 BASIC EDUCATION CURRICULUM
SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK**

CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
5. Fire Code 6. National Building Code 7. Fire protection equipment and installations			LO 3. Draft fire protection systems 3.1 Draw fire sprinkler system according to Fire Code 3.2 Draw signs and symbols of fire protection systems according to fire protection requirements	TLE_ICTTD10DC-IVh-i-3
8. Gas piping fittings and joints			LO 4. Draft gas piping system 4.1 Draft gas piping layout according to Mechanical Code 4.2 Draw signs and symbols according to mechanical layout and detail requirements	TLE_ICTTD10DC-IVj-4

**K to 12 BASIC EDUCATION CURRICULUM
SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK
INFORMATION AND COMMUNICATIONS TECHNOLOGY – TECHNICAL DRAFTING
GLOSSARY**

**K to 12 BASIC EDUCATION CURRICULUM
 SENIOR HIGH SCHOOL TECHNICAL-VOCATIONAL-LIVELIHOOD TRACK
 INFORMATION AND COMMUNICATIONS TECHNOLOGY – TECHNICAL DRAFTING**

Code Book Legend

Sample: TLE_ICTTD10DC-IVj-4

LEGEND		SAMPLE	
First Entry	Learning Area and Strand/ Subject or Specialization	Technology and Livelihood Education_Home Economics Tailoring	TLE_ICT TD 10
	Grade Level	Grade 10	
Uppercase Letter/s	Domain/Content/ Component/ Topic	Drafting Mechanical Layout and Details Using CAD	DC
			-
Roman Numeral <i>*Zero if no specific quarter</i>	Quarter	Fourth Quarter	IV
Lowercase Letter/s <i>*Put a hyphen (-) in between letters to indicate more than a specific week</i>	Week	Week Ten	j
			-
Arabic Number	Competency	Draft gas piping system	4

DOMAIN/ COMPONENT	CODE
Personal Entrepreneurial Competencies	PECS
Environment and Market	EM
Use of Hand Tools and Equipment	UT
Maintain Computer Equipment and Systems	MT
Perform Mensuration and Calculation	MC
Prepare and Interpret Technical Drawing	TD
Practice Occupational Health and Safety Procedures	OS
Drafting Architectural Layout and Details	AL
Drafting Structural Layout and Details	SL
Drafting Electrical and Electronic Layout and Details	EL
Drafting Sanitary and Plumbing Layout and Details	SP
Drafting Mechanical Layout and Details	ML
Preparing Computer-Aided Drawing	CA
Drafting Structural Layout and Details Using CAD	LC
Drafting Electrical and Electronic Layout and Details Using CAD	EC
Drafting Sanitary and Plumbing Layout and Details Using CAD	SC
Drafting Mechanical Layout and Details Using CAD	DC



Contact Center Services

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INFORMATION AND COMMUNICATIONS TECHNOLOGY – CONTACT CENTER SERVICES
Grade 7/8 (Exploratory)**

Course Description:

This is an exploratory and introductory course that leads to a **Contact Center Services**, National Certificate (NC II). It covers **five (5)** common competencies that a **Grade 7/8** Technology and Livelihood Education (TLE) student ought to possess, namely: 1) use of equipment, 2) performing computer operation, 3) applying quality standards, 4) interpreting technical drawing and plans, and 5) practicing Occupational Health and Safety (OHS) procedures.

The preliminaries of this exploratory course include the following: 1) discussion of 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
<p>Introduction</p> <ol style="list-style-type: none"> 1. Relevance of the course 2. Basic concepts in Contact Center Services 3. Career opportunities 	The learners demonstrate an understanding of basic concepts and underlying theories in Contact Center Services	The learners shall be able to independently demonstrate common competencies in Contact Center Services as prescribed by the TESDA Training Regulation	<p><i>The learners...</i></p> <ol style="list-style-type: none"> 1. Discuss the relevance of the course 2. Explain basic concepts in Contact Center Services 3. Explore on opportunities for Contact Center Services as a career 	
LESSON 1: PERSONAL ENTREPRENEURIAL COMPETENCIES (PECS)				
<ol style="list-style-type: none"> 1. Assessment of Personal Entrepreneurial Competencies and Skills (PECs) vis-à-vis a practicing entrepreneur/employee <ol style="list-style-type: none"> 1.1 Characteristics 1.2 Attributes 1.3 Lifestyle 1.4 Skills 1.5 Traits 2. Analysis of PECs in relation to a practitioner 	The learners demonstrate an understanding of one's PECs	The learners shall be able to recognize his/her PECs and prepares an activity plan that aligns with that of a practitioner/entrepreneur in Contact Center Services	<p>LO 1. Recognize PECs needed in Contact Center Services</p> <ol style="list-style-type: none"> 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 PECs with that of a practitioner /entrepreneur 1.4 Align one's PECs with that of a practitioner/entrepreneur 	TLE_PECS8/7-00-1
LESSON 2: ENVIRONMENT AND MARKET (EM)				
<ol style="list-style-type: none"> 1. Key concepts of Environment and Market 2. Products and services available 	The learners demonstrate an understanding of environment and market	The learners shall be able to independently generate a business idea based on the	LO 1. Generate a business idea that relates with a career choice in Contact	TLE_EM7/8-00-1

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<p>in the market</p> <p>3. Differentiation of products and services</p> <p>4. Customers and their buying habits</p> <p>5. Competition in the market</p> <p>6. SWOT Analysis</p>	relating to a career choice in Contact Center Services	analysis of environment and market in Contact Center Services	<p>Center</p> <p>1.1 Conduct SWOT analysis</p> <p>1.2 Identify the different products/services available in the market</p> <p>1.3 Compare different products/services in Contact Center business</p> <p>1.4 Determine the profile potential customers</p> <p>1.5 Determine the profile potential competitors</p> <p>1.6 Generate potential business idea based on the SWOT analysis</p>	
LESSON 3: USE OF TOOLS AND EQUIPMENT (UT)				
<p>1. Equipment in Contact Center Services</p>	The learners demonstrate an understanding of equipment used in Contact Center Services	The learners shall be able to independently use equipment in Contact Center Services	<p>LO 1. Prepare equipment</p> <p>1.1 List equipment based on job requirement</p> <p>1.2 Identify appropriate equipment</p> <p>1.3 Classify equipment according to function and task requirement</p>	TLE_ICTCC7/8UT-0a-1
<p>2. Procedure in accomplishing forms:</p> <p> 2.1 Job order slips</p> <p> 2.2 Borrower's slip</p> <p>3. Requisition procedures</p>			<p>LO 2. Inspect equipment received</p> <p>2.1 Check the list of equipment to be requested per job requirement</p> <p>2.2 Inspect the requested equipment</p> <p>2.3 Assess the condition of all equipment for proper operation and safety</p>	TLE_ICTCC7/8UT-0b-2

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
LESSON 4: MAINTAIN COMPUTER EQUIPMENT AND SYSTEMS (MT)				
<ol style="list-style-type: none"> 1. Computer workstation and network 2. Computer peripherals 3. Telephone, dialer etc. 4. Security measures 5. Antivirus software/programs 6. File Management 	<p>The learners demonstrate an understanding of concepts and principles in maintaining computer equipment and systems</p>	<p>The learners shall be able to independently maintains computer equipment and systems as prescribed by the TESDA Training Regulations</p>	<p>LO1. Maintain computer equipment and systems</p> <ol style="list-style-type: none"> 1.1 Ensure the security of data, including regular back-ups and virus checks in accordance with standard operating procedures 1.2 Perform basic file maintenance procedure in line with the SOP 	<p>TLE_ICTCC7/8MT-0c-1</p>
LESSON 5: PERFORM MENSURATION AND CALCULATION (MC)				
<ol style="list-style-type: none"> 1. Geographical variables Distance measurement and conversion <ol style="list-style-type: none"> 1.1 Time zones 1.2 Temperature 1.3 Weather and climate 2. Currency conversion 3. Storage media capacity 	<p>The learners demonstrate an understanding of concepts and principles in performing mensuration and calculation</p>	<p>The learners shall be able to independently perform mensuration and calculation as prescribed by the TESDA Training Regulations</p>	<p>LO 1. Perform basic mensuration</p> <ol style="list-style-type: none"> 1.1 Identify geographical variables to be measured 1.2 Use basic mathematical processes for routine calculations 1.3 Employ different techniques in checking accuracy of the computation 	<p>TLE_ICTCC7/8MC-0d-1</p>

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
LESSON 6: PREPARE AND INTERPRET TECHNICAL DRAWING (TD)				
1. Basic symbols 2. Basic Elements 2.1 Schematic diagram 2.2 Charts 2.3 Block diagrams 2.4 Layout plans 2.5 Loop diagram	The learners demonstrate an understanding of concepts and principles in preparing and interpreting technical drawings and work plans in Contact Center Services	The learners shall be able to independently prepare and interpret technical drawings and work plans accurately	LO 1. Identify different kinds of technical drawings 1.1 Identify basic symbols used in technical drawing 1.2 Select technical drawing in accordance with the job requirement	TLE_ICTCS7/8ID-0e-1
3. Flowchart interpretation 3.1 Types of flowchart			LO 2. Interpret technical drawing 2.1 Identify the basic symbols used in flow charting 2.2 Interpret the symbols used in flow charting 2.3 Create a flow chart that depicts a simple scenario	TLE_ICTCS7/8ID-0f-2
LESSON 7: PRACTICE OCCUPATIONAL HEALTH AND SAFETY PROCEDURE (OS)				
1. Hazards and risks control 1.1 safety regulations 1.2 indicators of hazard and risks 1.3 contingency measures	The learners demonstrate an understanding of concepts and principles of Occupational Health and Safety (OHS) Procedures in relation to hazards and risks in the workplace	The learners shall be able to consistently observe and practice OHS procedures in the workplace	LO 1. Identify hazards and risks 1.1 Explain hazards and risks in the workplace 1.2 Identify hazards and risks indicators in the workplace 1.3 Apply contingency measures in accordance with the OHS Procedures	TLE_ICTCS7/8OS-0g-1
2. Evaluation of hazards and risks 2.1 Effects of hazards and risks in the work place			LO 2. Evaluate hazards and risks 2.1 Determine the effects of hazards and risks 2.2 Classify the types of hazards and risks in the workplace	TLE_ICTCS7/8OS-0h-2

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
3. Hazards and risks control 3.1 Safety regulation			LO 3. Control hazards and risks 3.1 Follow OHS Procedures for controlling hazards and risks 3.2 Use personal protective equipment (PPE) 3.3 Follow and observe organizational protocol when providing emergency assistance	TLE_ICTCS7/8OS-0i-3
4. Maintenance of OHS Procedures awareness 4.1 Operational health and safety procedures, practices and regulations			LO 4. Maintain occupational health and safety regulations 4.1 Participate in related drills and training 4.2 Prepare OHS personal records in accordance with workplace requirements	TLE_ICTCS7/8OS-0j-4

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INFORMATION AND COMMUNICATIONS TECHNOLOGY – CONTACT CENTER SERVICES
Grade 9 (Specialization)**

Course Description:

This is a specialization course that leads to a **Contact Center Services** National Certificate Level II (NC II). It covers **two (2)** core competencies that a Grade 9 Technology and Livelihood Education (TLE) student ought to possess, namely: 1) performing basic computer operations and Internet navigation, and 2) demonstrating an understanding of local and international geography and cultures.

The preliminaries of this specialization course include the following: 1) discussion of 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
<p>Introduction</p> <ol style="list-style-type: none"> 1. Relevance of the course 2. Concepts and core competencies in Contact Center Services 3. Career opportunities 	The learners demonstrate an understanding of concepts, underlying theories, and core competencies in Contact Center Services	The learners shall be able to demonstrate competencies in Contact Center Services as prescribed by the TESDA Training Regulation	<p><i>The learners...</i></p> <ol style="list-style-type: none"> 1. Discuss the relevance of the course 2. Explain concepts, theories, and core competencies in Contact Center Services 3. Explore on opportunities for Contact Center Services as a career 	
LESSON 1: PERSONAL ENTREPRENEURIAL COMPETENCIES (PECS)				
<ol style="list-style-type: none"> 1. Assessment of Personal Competencies and Skills (PECs) vis-à-vis a practicing entrepreneur/ employee in locality/town. <ol style="list-style-type: none"> 1.1 Characteristics 1.2 Attributes 1.3 Lifestyle 1.4 Skills 1.5 Traits 2. Analysis of PECs in relation to a practitioner 3. Align, strengthen, and develop ones PECs based on the results 	The learners demonstrate an understanding of one's PECs in Contact Center Services	The learners shall be able to recognize his/her PECs and prepare an activity plan that aligns with that of a practitioner/entrepreneur in Contact Center Services	<p>LO 1. Recognize PECs needed in Contact Center Services</p> <ol style="list-style-type: none"> 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 PECs with those of a practitioner /entrepreneur 1.4 Align one's PECs with those of a practitioner/entrepreneur 	TLE_PECS9-I0-1
LESSON 2: ENVIRONMENT AND MARKET (EM)				
<ol style="list-style-type: none"> 1. Market (Town) 2. Key concepts of Market 	The learners demonstrate an understanding of	The learners shall be able to create a business vicinity map	LO 1. Recognize and understand the market in	TLE_EM9-I0-1

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
3. Players in the market (Competitors) 4. Products and services available in the market	environment and market in Contact Center Services in one's locality/town.	reflective of a potential market in Contact Center Services a locality/town	Contact Center Services 1.1 Identify the players/competitors within the town 1.2 Identify the different products/services available in the market	
5. Market (Customer) 6. Key concepts of identifying and understanding the consumer 7. Consumer Analysis through: 7.1 Observation 7.2 Interviews 7.3 FGD 7.4 Survey			LO 2. Recognize the potential customer/market in Contact Center Services 2.1 Identify the profile of potential customers 2.2 Identify the customer's needs and wants through consumer analysis 2.3 Conduct consumer/market analysis	TLE_EM9-I0-2
LESSON 3: PERFORM BASIC COMPUTER OPERATIONS AND INTERNET NAVIGATION (CO)				
1. Safety measures 2. Basic computer parts 3. Connection of PC hardware and peripheral devices 4. Keyboard layout and functions 5. Basic PC hardware and software operation and function 6. Computer start-up procedures 7. Operating system features 8. Online help functions	The learners demonstrate an understanding of concepts and principles of basic computer operations and internet navigation	The learners shall be able to demonstrate skills in basic computer operations and internet navigation	LO 1. Apply computer basic operation procedures 1.1 Observe OHS policies and procedures in computer operation and internet navigation in accordance with requirements 1.2 Check basic peripheral devices based on proper connection 1.3 Start computer according to logon procedures 1.4 Access operating system features and functions 1.5 Use available online help functions	TLE_ICTCC9CO-Ia-j-1
9. Application programs installation procedure 10. Installed programs configuration 11. Searched features of a program 12. Online help of a program			LO 2. Install, configure, and work with application program 2.1 Configure software settings according to the given task 2.2 Manipulate features of application programs	TLE_ICTCC9CO-IIa-j-2

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			2.3 Select appropriate software in accordance with the given task 2.4 Open destination of file directory 2.5 Search files and documents using the online help of a program	
13. Hard drive and file concepts 14. File saving and retrieving 15. Finding relevant information 16. Software features/utilities			LO 3. Organize and manipulate files 3.1 Identify files in a directory/folder according to types and usage 3.2 Save documents with file names according to the requirement 3.3 Manipulate files according to the set procedures 3.4 Restore deleted files using the standard utility 3.5 Locate files/information using the standard features/utility	TLE_ICTCC9CO-IIIa-b-3
17. Internet application program installation 18. Internet software 19. Terms and definitions 20. Search Engine 21. E-mail Sending and retrieving 22. Internet connection 23. Internet protocols and data types 24. Privacy and security measures related to online tasks			LO 4. Work with Internet 4.1 Identify Installed Internet application programs and state according to their purposes 4.2 Demonstrate Internet software on how it can be use offline 4.3 Define relevant terms and use correctly 4.4 Identify potential security risks 4.5 Search files and documents in related links using search engines 4.6 Follow procedures in configuring privacy and security measures to online task 4.7 Manipulate e-mail messages	TLE_ICTCC9CO-IIIc-g-4

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			based on requirements 4.8 Retrieve files attached to incoming e-mails	
25. Safety measures 26. Preventive measures for computer viruses 27. Closing the files and programs 28. Procedure in closing the computer			LO 5. Log off from a computer 5.1 Observe OHS policies and procedures in turning off the computer in accordance with the SOP 5.2 Update installed firewall protection and antivirus software 5.3 Scan removable storage devices using antivirus software before opening any files/applications 5.4 Save file based on proper procedures 5.5 Close all application programs 5.6 Shut down the computer based on proper procedures 5.7 Shut down computer and peripheral devices	TLE_ICTCC9CO-IIIh-5
LESSON 4: UNDERSTANDING OF LOCAL AND INTERNATIONAL GEOGRAPHY AND CULTURES (GC)				
1. Introduction to local and international cultures 2. Cultural variables 2.1 Time zones 2.2 Holidays 2.3 Cities, etc. 3. Cultural similarities and Differences	The learners demonstrate an understanding of concepts and principles of local and international geography and cultures	The learners shall be able to demonstrate skills in and apply an understanding of local and international geography and cultures	LO 1. Apply knowledge of common cultural variables 1.1 Identify cultural variables and values of target customers 1.2 Identify cultural similarities and differences that affect customer and business transactions	TLE_ICTCC9GC-IVa-c-1
4. Local and international			LO 2. Apply knowledge of local and international geography	

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
language/accents 5. Accent improvement 6. Geographic variables 6.1 Regions 6.2 States and Capitals 6.3 Time Zones and Daylight-Saving Time (DST) 7. Basic geography 7.1 Recognize place names and common person names 7.2 Correct pronunciation of names 7.3 Map reading 7.4 State abbreviations			2.1 Familiarize with the different accents and regional style 2.2 Identify geographic variables that affect customer and business transactions 2.3 Apply knowledge of local and international geography in day- to-day business transactions	TLE_ICTCC9GC-IVd-j-2

**K to 12 BASIC EDUCATION CURRICULUM
TECHNOLOGY AND LIVELIHOOD EDUCATION
INFORMATION AND COMMUNICATIONS TECHNOLOGY – CONTACT CENTER SERVICES
Grade 10 (Specialization)**

Course Description:

Prerequisite: Grade 9 Contact Center Services

This is a specialization course that leads to a **Contact Center Services** National Certificate Level II (NC II). It covers **two (2)** core competencies that a **Grade 10** Technology and Livelihood Education (TLE) student ought to possess, namely: 1) communicating effectively using the English language and 2) delivering quality customer service.

The preliminaries of this specialization course include the following: 1) discussion of 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
<p>Introduction</p> <ol style="list-style-type: none"> 1. Relevance of the course 2. Basic concepts and core competencies in Contact Center Services 3. Career opportunities 	The learners demonstrate an understanding of basic concepts, theories, and core competencies in Contact Center Services	The learners shall be able to independently provide quality and marketable service in Contact Center Services as prescribed by the TESDA Training Regulations	<p><i>The learners...</i></p> <ol style="list-style-type: none"> 1. Discuss the relevance of the course 2. Explain basic concepts, theories, and core competencies in Contact Center Services 3. Explore opportunities for a career in Contact Center Service 	
LESSON 1: PERSONAL ENTREPRENEURIAL COMPETENCIES - PECs (PC)				
<ol style="list-style-type: none"> 1. Assessment of Personal Competencies and Skills (PECs) vis-à-vis 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 PECs in relation to a practitioner 3. Application of PECs to the chosen business/career 	The learners demonstrate an understanding of one's PECs in Contact Center Services	The learners shall be able to create a plan of action that strengthens/ further develops one's PECs in Contact Center Services	<p>LO 1. Develop and strengthen PECs needed in Contact Center Services</p> <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_PECs10-I0-1

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
LESSON 2: ENVIRONMENT AND MARKET (EM)				
1. Product Development 2. Key concepts of developing a product 3. Finding Value 4. Innovation 4.1 Unique Selling Proposition (USP)	The learners demonstrate an understanding of the environment and market of Contact Center Services in one's town/municipality	The learners shall be able to create a business vicinity map reflective of potential market in Contact Center Services in a town/municipality	LO 1. Develop a product/ service in Contact Center Services 1.1 Identify what is of "Value" to the customer 1.2 Identify the customer to sell to 1.3 Explain what makes a product unique and competitive 1.4 Apply creativity and Innovative techniques to develop marketable product 1.5 Employ a Unique Selling Proposition (USP) to the product/service	TLE_EM10-IO-1
5. Selecting Business Idea 6. Key concepts of Selecting a Business Idea 6.1 Criteria 6.2 Techniques			LO 2. Select a business idea based on the criteria and techniques set 2.1 Enumerate various criteria and steps in selecting a business idea 2.2 Apply the criteria/steps in selecting a viable business idea 2.3 Determine a business idea based on the criteria/techniques set	TLE_EM10-IO-2
7. Branding			LO 3. Develop a brand for the product 3.1 Identify the benefits of having a good brand 3.2 Enumerate recognizable brands in the town/province 3.3 Enumerate the criteria for	TLE_EM10-IO-3

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			developing a brand 3.4 Generate a clear and appealing product brand	
LESSON 3: COMMUNICATING EFFECTIVELY IN ENGLISH (CE)				
1. Communication pathways 1.1 verbal 1.2 written 1.3 email and other electronic methods 1.4 supervisors, peers and subordinates 1.5 agent to customer 2. Elements of communication 2.1 message 2.2 sender 2.3 transmission medium 2.4 recipient 2.5 noise 2.6 context 3. Barriers 3.1 noise 3.2 time 3.3 message quality 3.4 ethnocentrism 3.5 conflict of ideas 3.6 prejudgment	The learners demonstrate an understanding of concepts and principles in communicating effectively in English	The learners shall be able to demonstrate the proper skills of communicating effectively in the English language in accordance with company policies	LO 1. Analyze communication process 1.1 Identify communication pathway available in accordance with the contact center SOP 1.2 Identify elements of communication in each pathway 1.3 Take appropriate action according to established practices 1.4 Identify barriers to communication in a customer contact center 1.5 Take action in accordance with company policies	TLE_ICTCC10CE-Ia-c-1
4. Oral skills 4.1 phonemes 4.2 sentence construction 5. Grammar 5.1 subject-verb agreement 5.2 tense and aspect 5.3 preposition 5.4 modifiers 5.5 conditionals 6. Listening skills 7. Writing skills 7.1 spelling 7.2 organization			LO 2. Communicate and listen effectively 2.1 Identify the difference between verbal communication and other communication types as per company and customer requirements 2.2 Use English language deploying oral, written, listening, and grammar skills 2.3 Use active listening techniques to enhance the	TLE_ICTCC10CE-Id-j-2

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
7.3 paragraphing 7.4 punctuation 7.5 transition markers 7.6 sentence construction 7.7 jargons			transmission of messages toward developing message reception 2.4 Translate verbal communication into written/electronic communication according to written standards	
8. Voice 8.1 rate 8.2 volume 8.3 pitch 8.4 tone 9. Accent 9.1 stress 9.2 intonation 9.3 blending 9.4 phrasing 10. Conversational Cues			LO 3. Use paralinguistic communication cues 3.1 Identify the importance of voice and accent in the contact center industry 3.2 Use correct vocal techniques to enhance message reception 3.3 Rephrase messages to suit conversational cues to convey ideas 3.4 Use paralinguistic cues appropriate to customers and workplace situations in accordance with the established procedures	TLE_ICTCC10CE-IIa-j-3
LESSON 4: DELIVERING QUALITY CUSTOMER SERVICES (QS)				
1. Types of industry 2. Business Process Outsourcing 3. Types of products and services 4. Call center agents performance matrix	The learners demonstrate an understanding of concepts and principles in delivering quality customer services	The learners shall be able to demonstrate appropriate approaches in delivering quality customer services in accordance with call-center industry policies	LO 1. Demonstrate understanding of the BPO/Call Center industry 1.1 Describe the BPO/ Call Center Industry 1.2 Describe the basic services related to customer service, sales, and technical support within BPO/ Call Center Industry 1.3 Explain the basic performance matrix of a call center agent	TLE_ICTCC10QS-IIIa-c-1

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
<p>5. Clients/customers' needs</p> <ul style="list-style-type: none"> 5.1 counseling 5.2 directory 5.3 booking 5.4 technical support 5.5 academic instruction 5.6 travel advisories 5.7 sales 5.8 data gathering <p>6. Products and services</p> <ul style="list-style-type: none"> 6.1 financial services 6.2 technical support 6.2 sales support 6.3 client-specific products <p>7. Interactive communication</p> <ul style="list-style-type: none"> 7.1 Gathering information in a courteous, professional manner 7.2 Active listening 7.3 Probing skills <ul style="list-style-type: none"> 7.3.1 paraphrasing 7.3.2 summarizing 7.3.3 clarifying 7.4 Ensuring consistent quality service for all types of customers 7.5 Avoiding sensitive topics (e.g. politics, religion) <p>8. Hold process</p> <ul style="list-style-type: none"> 8.1 why hold is necessary 8.2 permission before placing customers on hold 8.3 hold time estimates 8.3 returning to the call if hold is longer than estimated time 8.4 acknowledging the customer for holding upon returning to the call <p>9. Phone etiquette</p>			<p>LO 2. Transmit/receive calls to or from customers</p> <ul style="list-style-type: none"> 2.1 Identify types of calls in accordance with the client/customer's needs 2.2 Use interactive communication in accordance with customer-management relationship standards 2.3 Address customers' inquiries/concerns 2.4 Provide courtesy to the customer in accordance with customer relationship management 2.5 Establish rapport in accordance with customer/client relationship 2.6 Identify inquiries/concerns required for transfer/hold in accordance with the enterprise policy 2.7 Summarize the information and confirm that the objectives are met when ending calls 2.8 Observe proper telephone etiquette in closing the conversation 2.9 Protect customer information 	<p>TLE_ICTCC10QS-IIIId-j-2</p>

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
9.1 Creating a good first impression 9.2 Following the standard hold procedure 9.3 Transferring a call 9.4 Taking notes during the call 9.5 Making a last impression				
10. Protocols for handling difficult or irate customers 11. Process of handling customer inquiries 12. Empathy 12.1 Acknowledging peoples' feelings 12.2 Understanding the customer/clients' situation 12.3 Acknowledging the situation and providing appropriate response 13. Language for dealing with customer complaints 14. Process of handing off customers to supervisors			LO 3. Handle customers' complaints 3.1 Respond to complaints promptly with empathy 3.2 Address customers' complaints with clear, direct, accurate, and timely response 3.3 Establish details of complaints and use basic remedies in accordance with enterprise policy 3.4 Implement appropriate referral or hands-off procedures as required 3.5 Refer complicated concerns to higher authority	TLE_ICTCC10QS-IVa-f-3
15. Problem solving skills 16. Active listening or questioning skills 17. Instruction techniques 18. Documentation procedures 19. Influencing/ Persuasion techniques			LO 4. Provide after-sales support and document events 4.1 Ensure customer satisfaction by making a return call 4.2 Discuss action/s necessary to resolve complaint/s and confirm with the customer	TLE_ICTCC10QS-IVg-j-4

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CONTENT	CONTENT STANDARD	PERFORMANCE STANDARD	LEARNING COMPETENCIES	CODE
			4.3 Record agreements reached with the customer and implement within agreed time frame 4.4 Initiate follow-up action/s to ensure that agreements with customers are implemented 4.5 Document actions and resolutions agreed upon with the customer in accordance with company procedures	

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INFORMATION AND COMMUNICATIONS TECHNOLOGY – CONTACT CENTER SERVICES
GLOSSARY**

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TECHNOLOGY AND LIVELIHOOD EDUCATION
INFORMATION AND COMMUNICATIONS TECHNOLOGY – CONTACT CENTER SERVICES**

Code Book Legend

Sample: TLE_ ICTCC10QS-IVg-j-4

LEGEND		SAMPLE	
First Entry	Learning Area and Strand/ Subject or Specialization	Technology and Livelihood Education_ Information and Communications Technology Contact Center Services	TLE_ ICT CC 10
	Grade Level	Grade 10	
Uppercase Letter/s	Domain/Content/ Component/ Topic	Delivering Quality Customer Services	QS
			-
Roman Numeral <i>*Zero if no specific quarter</i>	Quarter	Fourth Quarter	IV
Lowercase Letter/s <i>*Put a hyphen (-) in between letters to indicate more than a specific week</i>	Week	Week Seven to Ten	g-j
			-
Arabic Number	Competency	Provide after-sales support and document events	4

DOMAIN/ COMPONENT	CODE
Personal Entrepreneurial Competencies	PECS
Environment and Market	EM
Use of Hand Tools and Equipment	UT
Maintain Computer Equipment and Systems	MT
Perform Mensuration and Calculation	MC
Prepare and Interpret Technical Drawing	ID
Practice Occupational Health and Safety Procedures	OS
Perform Basic Computer Operations and Internet Navigation	CO
Understanding of Local and International Geography and Cultures	GC
Communicating Effectively in English	CE
Delivering Quality Costumer Services	QS