

TRAINING REGULATIONS



FISH CAPTURE NC I

**AGRICULTURE AND FISHERY, PROCESSED
FOOD AND BEVERAGES SECTOR**

**TECHNICAL EDUCATION AND SKILLS DEVELOPMENT
AUTHORITY**

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AGRICULTURE AND FISHERY, PROCESSED FOOD AND BEVERAGES SECTOR

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TRAINING REGULATIONS FOR FISH CAPTURE NC I

Section 1 FISH CAPTURE NC I QUALIFICATION

The **Fish Capture NC I** Qualification consists of competencies that a person must achieve to catch and deliver seafood products. Workers at this level would have no previous experience in this industry sector. Work would be routine and carried out under close supervision

This Qualification is packaged from the competency map of the Agriculture and Fishery, Processed Food and Beverages Sector as shown in Annex A.

The units of competency comprising this qualification include the following:

Code	BASIC COMPETENCIES
500311101	Receive and respond to workplace communication
500311102	Work with others
500311103	Demonstrate work values
500311104	Practice basic housekeeping procedures

Code	COMMON COMPETENCIES
AGR321201	Apply safety measures in farm operations
AGR321202	Use farm tools and equipment
AGR321203	Perform estimation and calculations
AGR741201	Apply food safety and sanitation
MTM834202	Prevent and fight fire
MTM834204	Provide first aid treatment on board
MTM834205	Protect marine environment
MTM834206	Comply with emergency procedures

Code	CORE COMPETENCIES
AGR641301	Apply deckhand skills aboard a fishing vessel
AGR641302	Load and unload goods / cargo
AGR641303	Assemble and repair damaged netting

A person who has achieved this Qualification is competent to be:

- **Ultimo**

SECTION 2

COMPETENCY STANDARDS

These guidelines are set to provide the Technical Vocational Education and Training (TVET) providers with information and other important requirements to consider when designing training programs for **Fish Capture NC I**. These units of competency are categorized into basic, common and core competencies.

BASIC COMPETENCIES

UNIT OF COMPETENCY: RECEIVE AND RESPOND TO WORKPLACE COMMUNICATION

UNIT CODE : 500311101

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes required to receive, respond and act on verbal and written communication.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized</i> terms are elaborated in the Range of Variables
1. Follow routine spoken messages	<p>1.1. Required information is gathered by listening attentively and correctly interpreting or understanding information/instructions</p> <p>1.2. Instructions/information are properly recorded</p> <p>1.3. Instructions are acted upon immediately in accordance with information received</p> <p>1.4. Clarification is sought from workplace supervisor on all occasions when any instruction/information is not clear</p>
2. Perform workplace duties following written notices	<p>2.1 <i>Written notices and instructions</i> are read and interpreted correctly in accordance with organizational guidelines</p> <p>2.2 Routine written instruction are followed in sequence</p> <p>2.3 Feedback is given to workplace supervisor based on the instructions/information received</p>

RANGE OF VARIABLES

VARIABLE	RANGE
1. Written notices and instructions	<p>It refers to :</p> <ul style="list-style-type: none">1.1. Handwritten and printed material1.2. Internal memos1.3. External communications1.4. Electronic mail1.5. Briefing notes1.6. General correspondence1.7. Marketing materials1.8. Journal articles
2. Organizational Guidelines	<p>It may include:</p> <ul style="list-style-type: none">2.1. Information documentation procedures2.2. Company policies and procedures2.3. Organization manuals2.4. Service manual

EVIDENCE GUIDE

1. Critical aspects of Competency	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1. Demonstrated knowledge of organizational procedures for handling verbal and written communications 1.2. Received and acted on verbal messages and instructions 1.3. Demonstrated competency in recording instructions/information
2. Underpinning Knowledge and Attitudes	<ul style="list-style-type: none"> 2.1. Knowledge of organizational policies/guidelines in regard to processing internal/external information 2.2. Ethical work practices in handling communications 2.3. Communication process
3. Underpinning Skills	<ul style="list-style-type: none"> 3.1. Conciseness in receiving and clarifying messages/information/communication 3.2. Accuracy in recording messages/information
4. Resource Implications	<p>The following resources MUST be provided:</p> <ul style="list-style-type: none"> 4.1. Pens 4.2. Note pads
5. Methods of Assessment	<p>Competency may be assessed through:</p> <ul style="list-style-type: none"> 5.1. Direct Observation 5.2. Oral interview 5.3. Written Evaluation 5.4. Third Party Report
6. Context of Assessment	<ul style="list-style-type: none"> 6.1. Competency may be assessed individually in the actual workplace or simulation environment in TESDA accredited institutions

UNIT OF COMPETENCY : WORK WITH OTHERS

UNIT CODE : 500311102

UNIT DESCRIPTOR : This unit cover the skills, knowledge and attitudes required to develop workplace relationship and contribute in workplace activities.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized</i> terms are elaborated in the Range of Variables
1. Develop effective workplace relationship	1.1 <i>Duties and responsibilities</i> are done in a positive manner to promote cooperation and good relationship 1.2 Assistance is sought from <i>workgroup</i> when difficulties arise and addressed through discussions 1.3 <i>Feedback</i> provided by others in the team is encouraged, acknowledged and acted upon 1.4 Differences in personal values and beliefs are respected and acknowledged in the development
2. Contribute to work group activities	2.1 <i>Support is provided to team members</i> to ensure workgroup goals are met 2.2 Constructive contributions to workgroup goals and tasks are made according to <i>organizational requirements</i> 2.3 Information relevant to work is shared with team members to ensure designated goals are met

RANGE OF VARIABLES

VARIABLE	RANGE
1. Duties and responsibilities	1.1 Job description and employment arrangements 1.2 Organization's policy relevant to work role 1.3 Organizational structures 1.4 Supervision and accountability requirements including OHS 1.5 Code of conduct
2. Work group	2.1 Supervisor or manager 2.2 Peers/work colleagues 2.3 Other members of the organization
3. Feedback on performance	3.1 Formal/Informal performance appraisal 3.2 Obtaining feedback from supervisors and colleagues and clients 3.3 Personal, reflective behavior strategies 3.4 Routine organizational methods for monitoring service delivery
4. Providing support to team members	4.1 Explaining/clarifying 4.2 Helping colleagues 4.3 Providing encouragement 4.4 Providing feedback to another team member 4.5 Undertaking extra tasks if necessary
5. Organizational requirements	5.1 Goals, objectives, plans, system and processes 5.2 Legal and organization policy/guidelines 5.3 OHS policies, procedures and programs 5.4 Ethical standards 5.5 Defined resources parameters 5.6 Quality and continuous improvement processes and standards

EVIDENCE GUIDE

1. Critical aspects of competency	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1. Provided support to team members to ensure goals are met 1.2. Acted on feedback from clients and colleagues 1.3. Accessed learning opportunities to extend own personal work competencies to enhance team goals and outcomes
2. Underpinning Knowledge	<ul style="list-style-type: none"> 2.1. The relevant legislation that affects operations, especially with regards to safety 2.2. Reasons why cooperation and good relationships are important 2.3. Knowledge of the organization's policies, plans and procedures 2.4. Understanding how to elicit and interpret feedback 2.5. Knowledge of workgroup member's responsibilities and duties 2.6. Importance of demonstrating respect and empathy in dealings with colleagues 2.7. Understanding of how to identify and prioritize personal development opportunities and options
3. Underpinning Skills	<ul style="list-style-type: none"> 3.1. Ability to read and understand the organization's policies and work procedures 3.2. Write simple instructions for particular routine tasks 3.3. Interpret information gained from correspondence 3.4. Communication skills to request advice, receive feedback and work with a team 3.5. Planning skills to organized work priorities and arrangement 3.6. Technology skills including the ability to select and use technology appropriate to a task 3.7. Ability to relate to people from a range of social, cultural and ethnic backgrounds.

4. Resource Implications	<p>The following resources MUST be provided:</p> <p>4.1. Access to relevant workplace or appropriately simulated environment where assessment can take place</p> <p>4.2. Materials relevant to the proposed activity or task</p>
5. Methods of Assessment	<p>Competency may be assessed through:</p> <p>5.1. Direct observations of work activities of the individual member in relation to the work activities of the group</p> <p>5.2. Observation of simulation and/or role play involving the participation of individual member to the attainment of organizational goal</p> <p>5.3. Case studies and scenarios as a basis for discussion of issues and strategies</p>
6. Context for Assessment	<p>6.1. Competency assessment may occur in workplace or any appropriately simulated environment</p> <p>6.2. Assessment shall be observed while task are being undertaken whether individually or in group</p>

UNIT OF COMPETENCY: DEMONSTRATE WORK VALUES

UNIT CODE **500311103**

UNIT DESCRIPTOR : This unit covers the knowledge, skills, and attitude in demonstrating proper work values.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized</i> terms are elaborated in the Range of Variables
1. Define the purpose of work	1.1 One's unique sense of purpose for working and the why's of work are identified, reflected on and clearly defined for one's development as a person and as a member of society. 1.2 Personal mission is in harmony with company's values
2. Apply work values/ethics	2.1 Work values/ethics/concepts are classified and reaffirmed in accordance with the transparent company ethical standards, policies and guidelines. 2.2 Work practices are undertaken in compliance with industry work ethical standards, organizational policy and guidelines 2.3 Personal behavior and relationships with co-workers and/or clients are conducted in accordance with ethical standards, policy and guidelines. 2.4 Company resources are used in accordance with transparent company ethical standard, policies and guidelines.
3. Deal with ethical problems	3.1 Company ethical standards, organizational policy and guidelines on the prevention and reporting of unethical conduct are accessed and applied in accordance with transparent company ethical standard, policies and guidelines. 3.2 Work incidents/situations are reported and/or resolved in accordance with company protocol/guidelines. 3.3 Resolution and/or referral of ethical problems identified are used as learning opportunities.
4. Maintain integrity of conduct in the workplace	4.1 Personal work practices and values are demonstrated consistently with acceptable ethical conduct and company's core values. 4.2 Instructions to co-workers are provided based on ethical, lawful and reasonable directives. 4.3 Company values/practices are shared with co-workers using appropriate behavior and language.

RANGE OF VARIABLES

VARIABLE	RANGE
1. Work values/ethics/ concepts	May include but are not limited to: 1.1 Commitment/ Dedication 1.2 Sense of urgency 1.3 Sense of purpose 1.4 Love for work 1.5 High motivation 1.6 Orderliness 1.7 Reliability 1.8 Competence 1.9 Dependability 1.10 Goal-oriented 1.11 Sense of responsibility 1.12 Being knowledgeable 1.13 Loyalty to work/company 1.14 Sensitivity to others 1.15 Compassion/Caring attitude 1.16 Balancing between family and work 1.17 Pakikisama 1.18 Bayanihan spirit/teamwork 1.19 Sense of nationalism
2. Work practices	2.1 Quality of work 2.2 Punctuality 2.3 Efficiency 2.4 Effectiveness 2.5 Productivity 2.6 Resourcefulness 2.7 Innovativeness/Creativity 2.8 Cost consciousness 2.9 5S 2.10 Attention to details
3. Incidents/situations	3.1 Violent/intensed dispute or argument 3.2 Gambling 3.3 Use of prohibited substances 3.4 Pilferages 3.5 Damage to person or property 3.6 Vandalism 3.7 Falsification 3.8 Bribery 3.9 Sexual Harassment 3.10 Blackmail

VARIABLE	RANGE
4. Company resources	4.1 Consumable materials 4.2 Equipment/Machineries 4.3 Human 4.4 Time 4.5 Financial resources
5. Instructions	5.1 Verbal 5.2 Written

EVIDENCE GUIDE

1. Critical Aspects of Competency	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Defined one's unique sense of purpose for working 1.2 Clarified and affirmed work values/ethics/concepts consistently in the workplace 1.3 Demonstrated work practices satisfactorily and consistently in compliance with industry work ethical standards, organizational policy and guidelines 1.4 Demonstrated personal behavior and relationships with co-workers and/or clients consistent with ethical standards, policy and guidelines 1.5 Used company resources in accordance with company ethical standard, policies and guidelines. 1.6 Followed company ethical standards, organizational policy and guidelines on the prevention and reporting of unethical conduct/behavior
2. Underpinning Knowledge	<ul style="list-style-type: none"> 2.1 Occupational health and safety 2.2 Work values and ethics 2.3 Company performance and ethical standards 2.4 Company policies and guidelines 2.5 Fundamental rights at work including gender sensitivity 2.6 Work responsibilities/job functions 2.7 Corporate social responsibilities 2.8 Company code of conduct/values 2.9 Balancing work and family responsibilities
3. Underpinning Skills	<ul style="list-style-type: none"> 3.1 Interpersonal skills 3.2 Communication skills 3.3 Self awareness, understanding and acceptance 3.4 Application of good manners and right conduct
4. Resource Implications	<p>The following resources MUST be provided:</p> <ul style="list-style-type: none"> 4.1 Workplace or assessment location 4.2 Case studies/Scenarios
5. Methods of Assessment	<p>Competency may be assessed through:</p> <ul style="list-style-type: none"> 5.1 Portfolio Assessment 5.2 Interview 5.3 Third Party Reports
6. Context of Assessment	<ul style="list-style-type: none"> 6.1 Competency may be assessed in the work place or in a simulated work place setting

UNIT OF COMPETENCY: PRACTICE HOUSEKEEPING PROCEDURES

UNIT CODE : 500311104

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes required to apply the basic housekeeping procedures.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized</i> terms are elaborated in the Range of Variables
1. Sort and remove unnecessary items	1.1 Reusable, recyclable materials are sorted in accordance with company/office procedures 1.2 Unnecessary items are removed and disposed of in accordance with company or office procedures
2. Arrange items	2.1 Items are arranged in accordance with company/office housekeeping procedures 2.2 Work area is arranged according to job requirements 2.3 Activities are prioritized based on instructions. 2.4 Items are provided with clear and visible identification marks based on procedure 2.5 Safety equipment and evacuation passages are kept clear and accessible based on instructions
3. Maintain work area, tools and equipment	3.1 Cleanliness and orderliness of work area is maintained in accordance with company/office procedures 3.2 Tools and equipment are cleaned in accordance with manufacturer's instructions/manual 3.3 Minor repairs are performed on tools and equipment in accordance with manufacturer's instruction/manual 3.4 Defective tools and equipment are reported to immediate supervisor
4. Follow standardized work process and procedures	4.1 Materials for common use are maintained in designated area based on procedures 4.2 Work is performed according to standard work procedures 4.3 Abnormal incidents are reported to immediate supervisor
5. Perform work spontaneously	5.1 Work is performed as per instruction 5.2 Company and office decorum are followed and complied with 5.3 Work is performed in accordance with occupational health and safety (OHS) requirements

RANGE OF VARIABLES

VARIABLE	RANGE
1. Unnecessary items	May include but are not limited to: 1.1 Non-recyclable materials 1.2 Unserviceable tools and equipment 1.3 Pictures, posters and other materials not related to work activity 1.4 Waste materials
2. Identification marks	2.1 Labels 2.2 Tags 2.3 Color coding
3. Decorum	3.1 Company/ office rules and regulations 3.2 Company/ office uniform 3.3 Behavior
4. Minor repair	Minor repair include but not limited to: 4.1 Replacement of parts 4.2 Application of lubricants 4.3 Sharpening of tools 4.4 Tightening of nuts, bolts and screws

EVIDENCE GUIDE

1. Critical aspects of competency	Assessment requires evidence that the candidate: 1.1 Practiced the basic procedures of 5S
2. Underpinning Knowledge and Attitudes	2.1 Principles of 5S 2.2 Work process and procedures 2.3 Safety signs and symbols 2.4 General OH&S principles and legislation 2.5 Environmental requirements relative to work safety 2.6 Accident/Hazard reporting procedures
3. Underpinning Skills	3.1 Basic communication skills 3.2 Interpersonal skills 3.3 Reading skills required to interpret instructions 3.4 Reporting/recording accidents and potential hazards
4. Resource Implications	The following resources MUST be provided: 4.1 Facilities, materials tools and equipment necessary for the activity
5. Methods of Assessment	Competency must be assessed through: 5.1 Third party report 5.2 Interview 5.3 Demonstration with questioning
6. Context for Assessment	6.1 Competency may be assessed in the work place or in a simulated work place setting

COMMON COMPETENCIES For Agri-Fishery Sector

UNIT TITLE : APPLY SAFETY MEASURES IN FARM OPERATIONS

UNIT CODE : AGR321201

UNIT DESCRIPTOR: This unit covers the knowledge, skills and attitudes required to perform safety measures effectively and efficiently. It includes identifying areas, tools, materials, time and place in performing safety measures.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized</i> terms are elaborated in the Range of Variables
1. Determine areas of concern for safety measures	1.1 Work tasks are identified in line with farm operations 1.2 Place for safety measures are determined in line with farm operations 1.3 Time for safety measures are determined in line with farm operations 1.4 Appropriate tools, materials and outfits are prepared in line with job requirements
2. Apply appropriate safety measures	2.1 Tools and materials are used according to specifications and procedures 2.2 Outfits are worn according to farm requirements 2.3 Effectivity/shelf life/expiration of materials are strictly observed 2.4 Emergency procedures are known and followed to ensure a safework requirement 2.5 Hazards in the workplace are identified and reported in line with farm guidelines
3. Safekeep/dispose tools, materials and outfit	3.1 Used tools and outfit are cleaned after use and stored in designated areas 3.2 Unused materials are properly labeled and stored according to manufacturers recommendation and farm requirements 3.3 Waste materials are disposed according to manufacturers, government and farm requirements

RANGE OF VARIABLES

VARIABLE	RANGE
1. Work tasks	<p>Work task may be selected from any of the following sectors:</p> <ul style="list-style-type: none"> 1.1 Aquaculture 1.2 Animal Production 1.3 Crop Production 1.4 Post-harvest 1.5 Agri-marketing 1.6 Farm Equipment
2. Place	<ul style="list-style-type: none"> 2.1 Animal pens, cages, barns 2.2 Fish ponds, cages 2.3 Stock room/storage areas/warehouse 2.4 Field/farm/orchard
3. Time	<ul style="list-style-type: none"> 3.1 Vaccination and medication period 3.2 Fertilizer and pesticides application 3.3 Feed mixing and feeding 3.4 Harvesting and hauling
4. Tools, materials and outfits	<ul style="list-style-type: none"> 4.1 Tools <ul style="list-style-type: none"> 4.1.1 Wrenches 4.1.2 Screw driver 4.1.3 Pliers 4.2 Materials <ul style="list-style-type: none"> 4.2.1 Bottles 4.2.2 Plastic 4.2.3 Bags 4.2.4 Syringe 4.3 Outfit <ul style="list-style-type: none"> 4.3.1 Masks 4.3.2 Gloves 4.3.3 Boots 4.3.4 Overall coats 4.3.5 Hat 4.3.6 Eye goggles
5. Emergency procedures	<ul style="list-style-type: none"> 5.1 Location of first aid kit 5.2 Evacuation 5.3 Agencies contract 5.4 Farm emergency procedures

6. Waste materials	6.1 Animal manure 6.2 Waste water 6.3 Syringes 6.4 Unused farm chemicals e.g. pesticides, chemicals, fertilizers 6.5 Expired reagents 6.6 Dead animals
7. Hazards	7.1 Chemical 7.2 Electrical 7.3 Falls

EVIDENCE GUIDE

1. Critical Aspects of Competency	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Determined areas of concern for safety measures 1.2 Applied appropriate safety measures according to industry requirements 1.3 Prepared tools, materials and outfit needed 1.4 Performed proper disposal of used materials 1.5 Safekeep/cleaned tools, materials and outfit in designated facilities
2. Underpinning Knowledge and Attitudes	<ul style="list-style-type: none"> 2.1 Safety Practices <ul style="list-style-type: none"> 2.1.1 Implementation of regulatory controls and policies relative to treatment of area and application of chemicals 2.1.2 Proper disposal of waste materials 2.2 Codes and Regulations <ul style="list-style-type: none"> 2.2.1 Compliance to health program of DOH and DENR 2.2.2 Hazard identification 2.2.3 Emergency procedures 2.3 Tools & Equipment: Uses and Specification <ul style="list-style-type: none"> 2.3.1 Masks, gloves, boots, overall coats for health protection 2.4 Maintenance <ul style="list-style-type: none"> 2.4.1 Regular check-up and repair of tools, materials and outfit before and after use
3. Underpinning Skills	<ul style="list-style-type: none"> 3.1 Ability to recognize effective tools, materials and outfit 3.2 Ready skills required to read labels, manuals and other basic safety information
4. Method of Assessment	<p>Competency in this unit must be assessed through:</p> <ul style="list-style-type: none"> 4.1 Practical demonstration 4.2 Third Party Report
5. Resource Implications	<ul style="list-style-type: none"> 5.1 Farm location 5.2 Tools, equipment and outfits appropriate in applying safety measures
6. Context of Assessment	<ul style="list-style-type: none"> 6.1 Assessment may occur in the workplace or in a simulated workplace or as part of a team under limited supervision

UNIT TITLE: USE FARM TOOLS AND EQUIPMENT

UNIT CODE: AGR321202

UNIT DESCRIPTOR: This unit covers the knowledge, skills and attitudes required to use farm tools and equipment. It includes selection, operation and preventive maintenance of farm tools and equipment.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized</i> terms are elaborated in the Range of Variables
1. Select and use farm tools	1.1 Identified appropriate farm tools according to requirement/use 1.2 Farm tools are checked for faults and defective tools reported in accordance with farm procedures 1.3 Appropriate tools and equipment are safely used according to job requirements and manufacturers conditions
2. Select and operate farm equipment	2.1 Identify appropriate <i>farm equipment</i> 2.2 Instructional manual of the farm tools and equipment are carefully read prior to operation 2.3 <i>Pre-operation check-up</i> is conducted in line with manufacturers manual 2.4 Faults in farm equipment are identified and reported in line with farm procedures 2.5 Farm equipment used according to its function 2.6 Followed safety procedures
3. Perform preventive maintenance	3.1 Tools and equipment are cleaned immediately after use in line with farm procedures 3.2 Routine check-up and maintenance are performed 3.3 Tools and equipment are stored in designated areas in line with farm procedures

RANGE OF VARIABLES

VARIABLE	RANGE
1. Farm equipment	1.1 Engine 1.2 Pumps 1.3 Generators 1.4 Sprayers
2. Farm tools	2.1 Sickle 2.2 Cutters 2.3 Weighing scales 2.4 Hand tools 2.5 Measuring tools 2.6 Garden tools
3. Pre-operation check-up	3.1 Tires 3.2 Brake fluid 3.3 Fuel 3.4 Water 3.5 Oil 3.6 Lubricants 3.7 Battery

EVIDENCE GUIDE

1. Critical Aspects of Competency	<p>Assessment requires evidence that the candidate:</p> <p>1.1 Correctly identified appropriate farm tools and equipment</p> <p>1.2 Operated farm equipments according to manual specification</p> <p>1.3 Performed preventive maintenance</p>
2. Underpinning Knowledge and Attitudes	<p>2.1 Safety Practices</p> <p>2.1.1 Ideal good work habits to demonstrate to workers easy and safety standards during operation of farm equipment</p> <p>2.2 Codes and Regulations</p> <p>2.2.1 Environmental Compliance Certificate (ECG)</p> <p>2.2.2 Effective work supervision in the operations of farm equipment</p> <p>2.3 Tools & Equipment: Uses and Specification</p> <p>2.3.1 Knowledge in calibrating and use of equipment</p> <p>2.3.2 Safety keeping of equipments every after use</p> <p>2.4 Maintenance</p> <p>2.4.1 Regular upkeep of equipments</p> <p>2.4.2 Preventive maintenance skills</p> <p>2.5 Values</p> <p>2.5.1 Positive outlook towards work</p> <p>2.5.2 Possesses pre-emptive/anticipatory skills</p>
3. Underpinning Skills	<p>3.1 Ability to recognized defective farm equipment</p> <p>3.2 Perform proper management practices of safety measures</p>
4. Method of Assessment	<p>Competency in this unit must be assessed through:</p> <p>4.1 Direct observation</p> <p>4.2 Practical demonstration</p> <p>4.3 Third Party Report</p>
5. Resource Implications	<p>5.1 Service/operational manual of farm tools and equipment</p> <p>5.2 Tools and equipment</p> <p>5.3 Farm implements</p>
6. Context of Assessment	<p>6.1 Assessment may occur in the workplace or in a simulated workplace or as part of a team under limited supervision</p>

UNIT TITLE: **PERFORM ESTIMATION AND BASIC CALCULATION**

UNIT CODE: **AGR321203**

UNIT DESCRIPTOR: This unit covers the knowledge, skills and attitudes required to perform basic workplace calculations.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized</i> terms are elaborated in the Range of Variables
1. Perform estimation	1.1 Job requirements are identified from written or oral communications 1.2 Quantities of materials and resources required to complete a work task are estimated 1.3 The time needed to complete a work activity is estimated 1.4 Accurate estimate for work completion are made 1.5 Estimate of materials and resources are reported to appropriate person
2. Perform basic workplace calculation	2.1 Calculations to be made are identified according to job requirements 2.2 Correct method of calculation identified 2.3 System and units of measurement to be followed are ascertained 2.4 Calculation needed to complete work tasks are performed using the four basic process of addition, division, multiplication and subtraction 2.5 Calculate whole fraction, percentage and mixed when are used to complete the instructions 2.6 Number computed in self checked and completed for alignment

RANGE OF VARIABLES

VARIABLE	RANGE
1. Calculations	1.1 Quantity of feeds 1.2 Amount of fertilizer 1.3 Amount of medicines
2. Method of calculation	2.1 Addition 2.2 Subtraction 2.3 Multiplication 2.4 Division 2.5 Ratio and proportion
3. System of measurement	3.1 English 3.2 Metric
4. Units of measurement	4.1 Area 4.2 Volume 4.3 Weight

EVIDENCE GUIDE

1. Critical Aspects of Competency	<p>Assessment requires evidence that the candidate:</p> <p>1.1 Performed estimation</p> <p>1.2 Performed basic workplace calculation</p> <p>1.3 Applied corrective measures as maybe necessary</p>
2. Underpinning Knowledge and Attitudes	<p>2.1 Mathematics</p> <p>2.1.1 Basic mathematical operations</p> <p>2.1.2 Percentage and ratios</p> <p>2.1.3 Unit Conversion</p> <p>2.1.4 Basic accounting principles and procedures</p> <p>2.1.4.1 Production cost</p> <p>2.1.4.2 Sales</p> <p>2.1.4.3 Accounts receivables/payables</p> <p>2.2 Systems, Processes and Operations</p> <p>2.2.1 Knowledge in different management practices and operational procedures</p> <p>2.3 Values</p> <p>2.3.1 Safety consciousness</p> <p>2.3.2 Time consciousness and management</p> <p>2.3.3 Cost consciousness</p> <p>2.3.4 Precision</p>
3. Underpinning Skills	<p>3.1 Ability to perform basic calculation</p> <p>3.2 Communicate effectively</p>
4. Method of Assessment	<p>Competency in this unit must be assessed through:</p> <p>4.1 Practical demonstration</p> <p>4.2 Written examination</p>
5. Resource Implications	<p>5.1 Relevant tools and equipment for basic calculation</p> <p>5.2 Recommended data</p>
6. Context of Assessment	<p>6.1 Assessment may occur in the workplace or in a simulated workplace or as part of a team under limited supervision</p>

UNIT OF COMPETENCY: APPLY FOOD SAFETY AND SANITATION**UNIT CODE : AGR741201****UNIT DESCRIPTOR:** This unit deals with the skills, knowledge and attitudes required to apply food safety and sanitation in the workplace

ELEMENTS	PERFORMANCE CRITERIA <i>Italicized</i> terms are elaborated in the Range of Variables
1. Wear Personal Protective Equipment	1.1 Personal protective equipment are checked according to <i>manufacturer's specifications</i> 1.2 <i>Personal protective equipment</i> are worn according to the job requirement
2. Observe Personal Hygiene and Good Grooming	2.1 <i>Personal hygiene and good grooming is practiced in line with workplace health and safety requirements</i>
3. Implement Food Sanitation Practices	3.1 Sanitary food handling practices are implemented in line with workplace sanitation regulations 3.2 Safety measures are observed in line with workplace safety practices.
4. Render Safety Measures and First Aid Procedures	4.1 <i>Safety measures</i> are applied according to workplace rules and regulations 4.2 <i>First aid procedures</i> are applied and coordinated with concerned personnel according to workplace standard operating procedures.
5. Implement housekeeping activities	5.1 Work area and surroundings are cleaned in accordance with workplace health and safety regulations 5.2 Waste is disposed according to organization's waste disposal system 5.3 <i>Hazards</i> in the work area are recognized and reported to designated personnel according to workplace procedures

RANGE OF VARIABLES

VARIABLES	RANGE
1. Manufacturer's Specifications	<p>Manufacturer's specifications may include but not limited to:</p> <ul style="list-style-type: none"> 1.1 Handling 1.2 Operating 1.3 Discharge Label 1.4 Reporting 1.5 Testing 1.6 Positioning 1.7 Refilling
2. Personal Protective Equipment	<p>Personal Protective Equipment may include but not limited to:</p> <ul style="list-style-type: none"> 2.1 Apron/laboratory gown 2.2 Mouth masks 2.3 Gloves 2.4 Rubber boots/safety shoes 2.5 Head gears such as caps, hair nets, earl plug
3. Workplace Health and Safety Requirements	<p>Workplace and Safety Requirements may include:</p> <ul style="list-style-type: none"> 3.1 Health/Medical Certificate 3.2 DOLE requirements 3.3 BFAD requirements 3.4 Personal Hygiene and good grooming 3.5 Plant Sanitation and waste management
4. Safety Measures	<p>Safety measures may include but not limited to:</p> <ul style="list-style-type: none"> 4.1 Labeling of chemicals and other sanitizing agents 4.2 Installation of fire fighting equipment in the work area 4.3 Installation of safety signages and symbols 4.4 Implementation of 5S in the work area 4.5 Removal of combustible material in the work area

5. First Aid Procedures	<p>First Aid Procedures may include but not limited to:</p> <ul style="list-style-type: none"> 5.1 Mouth to mouth resuscitation 5.2 CPR 5.3 Application of tourniquet 5.4 Applying pressure to bleeding wounds or cuts 5.5 First aid treatment for burned victims
6. Hazards	<p>Hazards in the workplace may include but not limited to:</p> <ul style="list-style-type: none"> 6.1 Physical 6.2 Biological 6.3 Chemical

EVIDENCE GUIDE

1. Critical Aspects of Competency	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Cleaned, checked and sanitized personal protective equipment 1.2 Practiced proper personal hygiene and good grooming 1.3 Implemented workplace food safety practices 1.4 Applied first aid measures to victims 1.5 Implemented good housekeeping activities in the work area
2. Underpinning Knowledge	<ul style="list-style-type: none"> 2.1 Safety Practices <ul style="list-style-type: none"> 2.1.1 Proper waste disposal 2.1.2 Environmental protection and concerns 2.1.3 Food safety principles and practices 2.1.4 Good grooming and personal hygiene 2.2 Codes and Regulations <ul style="list-style-type: none"> 2.2.1 TQM and other food quality system principles 2.2.2 ISO, HACCP, EMS, 5S 2.2.3 Good Food Manufacturing Practices 2.3 Equipment: Uses and Specifications <ul style="list-style-type: none"> 2.3.1 Parts and functions of personal protective equipment 2.3.2 First Aid Kit 2.3.3 Sanitizing equipment
3. Underpinning Skills	<ul style="list-style-type: none"> 3.1 Sanitary food handling practices 3.2 Implementing housekeeping activities 3.3 Applying first aid treatment 3.4 Coordination skills
4. Methods of Assessment	<p>Competency in this unit must be assessed through:</p> <ul style="list-style-type: none"> 4.1 A combination of direct observation and questioning of a candidate processing foods.
5. Resource Implications	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> 5.1 Work area/station 5.2 First Aid kit 5.3 PPE relevant to the activities 5.4 Fire extinguisher 5.5 Stretcher 5.6 Materials, tools and equipment relevant to the unit of competency
6. Context of Assessment	<ul style="list-style-type: none"> 6.1 Assessment should occur on the job or in a simulated workplace

COMMON COMPETENCIES FOR MARITIME SECTOR

UNIT OF COMPETENCY: **PREVENT AND FIGHT FIRE**

UNIT CODE : **MTM834202**

UNIT DESCRIPTOR : This unit identifies the competence required to prevent and fight fires on board a vessel, including management of fire prevention measures, initiation and management of evacuation, emergency shutdown and isolation procedures and the execution and coordination of fire-fighting operations

ELEMENT	PERFORMANCE CRITERIA
	<i>Italicized</i> terms are elaborated in the Range of Variables
1. Manage fire prevention procedures	1.1. Fire hazards on board a vessel are identified and action is taken to eliminate or minimize them 1.2. Fire detection and fire fighting equipment and systems are regularly checked and appropriate action is taken to ensure that they are operational 1.3. Appropriate educational activities are organized to ensure on-board personnel are aware of the dangers of fire, how to prevent it and what to do if a fire is detected 1.4. Personnel on board a vessel are made aware of emergency procedures to be followed in the event of fire
2. Operate portable fire-fighting equipment	2.1. Classes of fires are correctly identified in accordance with accepted fire-fighting practice 2.2. Correct portable fire-fighting equipment is selected and used to fight specific classes of fires 2.3. Class F fires are correctly extinguished with a fire blanket in accordance with accepted fire-fighting practice 2.4. Methods of extinguishing fire on board a vessel are correctly applied 2.5. Correct techniques are applied for the setting up of foam making equipment to extinguish B Class fires on board vessel 2.6. Where applicable, correct techniques are used to recharge the various types of portable fire extinguisher 2.7. Where applicable, portable fire-fighting equipment is confirmed as operational following recharging
3. Conduct interior search and rescue and fire-fighting operations (where applicable)	3.1. Procedures for donning and starting up SCBA / CABA are correctly applied 3.2. Procedures for the logging of SCBA / CABA operations on a BA Control Board is correctly

	<p>followed in accordance with vessel's procedures and accepted fire-fighting practice</p> <p>3.3. Search and rescue operations in a smoke filled environment are correctly conducted as a member of a fire-fighting team in accordance with accepted fire-fighting practice</p> <p>3.4. Interior fires are extinguished using appropriate fire fighting equipment and procedures as a member of a fire fighting team in accordance with accepted fire-fighting practice</p> <p>3.5. Lifeline signals are correctly used during interior fire fighting operations</p> <p>3.6. A compartment filled with high expansion foam is correctly entered as per accepted fire-fighting practice</p>
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RANGE OF VARIABLES

VARIABLE	RANGE
1. Classes of Fire	<p>Class A</p> <p>1.1. All solid materials, usually organic origin in nature (contains compounds of carbon) and generally produce glowing embers – i.e., wood, textiles, curtains, furniture and plastics.</p> <p>Class B</p> <p>1.2. All flammable liquids and solids, which can also be sub-divided into :</p> <p>1.3. Miscible with water (i.e., petrol, oils, lubricants, paints and waxes)</p> <p>1.4. Non-miscible with water (e.g., alcohol)</p> <p>Class C</p> <p>1.5. Fires involving domestic main gas, cylinder gases (e.g., Acetylene) or Liquid Petroleum Gases (LPG) such as Butane or Propane)</p> <p>Class D</p> <p>1.6. Fires involving metals (where water is generally ineffective and dangerous) i.e., metal powders such as magnesium, titanium, and alloys, etc.</p> <p>Class F</p> <p>1.7. New class specifically dealing with high temperature</p> <p>1.8. (360 degrees centigrade) cooking oils in large industrial catering kitchens, restaurants and takeaway establishments, etc.</p> <p>1.9. Electrical</p> <p>1.10. Electrical fires are not considered to constitute a fire class on their own, as electricity is a source of ignition that will feed the fire until removed. When the electrical supply has been isolated. The fire can be treated (generally) as Class A for extinguishing purposes. However, you should use a non-conducting agent on all possible occasions.</p>
Fire detection and fire fighting equipment and system	<p>2.1. Portable fire extinguisher including foam, water, CO₂, dry chemical and wet foam</p> <p>2.2. Fire blankets</p> <p>2.3. CO₂ fixed system</p> <p>2.4. Foam installation including semi-portable and fixed system</p>

	<p>2.5. Sprinkler system</p> <p>2.6. Fire pumps (main and emergency fire pump)</p> <p>2.7. Fire hoses, hydrants, branches and international shore connection</p>
3. Methods of Extinguishing fire	<p>3.1. Cooling</p> <p>3.2. Reducing the ignition temperature by taking the heat out of the fire – using water (limiting the temperature)</p> <p>3.3. Smothering</p> <p>3.4. Limiting the oxygen available by smothering and preventing the mixture of oxygen and flammable vapour – by use of foam or a fire blanket</p> <p>3.5. Starving</p> <p>3.6. Limiting the fuel supply – by removing the source of fuel ; by switching off electrical power, isolating the flow of flammable liquids or pulling away burning wood or straw, etc.</p> <p>3.7. Chemical Reaction</p> <p>3.8. By interrupting the chain of combustion and combining the hydrogen atoms with chlorine atoms in the hydrocarbon chain, e.g. Halons extinguisher (NB: Halons have now generally been withdrawn under the Montreal Protocol of 1990, as ozone depleting agents)</p>

EVIDENCE GUIDE

<p>1. Critical aspects of Competency</p>	<p>Assessment requires evidence that the candidate :</p> <ol style="list-style-type: none"> 1.1. Managed and implemented fire prevention measures and procedures on board a vessel 1.2. Assessed the operational capability of fire detection and fire fighting equipment and systems and initiate any required maintenance or replenishment action 1.3. Participated in simulated on board fire fighting activities 1.4. Participated in search and rescue and fire fighting teams 1.5. Implemented OHS principles and policies when carrying out fire fighting duties 1.6. Communicated effectively with others as required during fire emergencies
<p>2. Underpinning knowledge and attitude</p>	<ol style="list-style-type: none"> 2.1. Chemistry of fire and its relationship to materials typically carried on vessels 2.2. Types of fire detection, fire fighting, life saving and safety equipment and systems used on board vessels and the procedures for their use 2.3. Relevant regulations, code of practice, policies and procedures related to the maintenance of fire detection, fire fighting, life saving and safety equipment and system 2.4. Faults that can occur with shipboard fire detection, fire fighting, life saving and safety equipment and appropriate remedial action and solutions 2.5. Statutory and typical company requirements for the documentation of maintenance procedures and outcomes for fire detection, fire fighting, life saving and safety equipment and systems used on board vessels.
<p>3. Underpinning skills</p>	<ol style="list-style-type: none"> 3.1. Procedures in checking and replacing consumable materials in typical ship board fire detection, fire-fighting and safety equipment and system 3.2. Procedures in identifying and evaluating operational and maintenance problems with fire-detection, fire fighting, life saving and safety equipment and systems and determining appropriate courses of action 3.3. Procedures in identifying and implementing improvements to maintenance for fire-detection and fire-fighting. 3.4. Procedures on onboard housekeeping processes.

4. Resource implications	<p>The following resources must be provided:</p> <p>4.2. Work place location</p> <p>4.3. Tools and equipment appropriate to schedule housekeeping activities and to monitor and maintain working condition</p> <p>4.4. Material relevant to the proposed activity and tasks</p>
5. Method of assessment	<p>Competency must be assessed through :</p> <p>5.1. Demonstration and questioning of related underpinning knowledge</p> <p>5.2. Written Examination</p> <p>5.3. Portfolio</p>
6. Context for assessment	<p>6.1. Competency may be assessed in workplace or in a simulated workplace setting</p> <p>6.2. Assessment shall be observed while task are being undertaken whether individually or in-group</p>

UNIT OF COMPETENCY: **PERFORM FIRST AID TREATMENT ON BOARD**

UNIT CODE : **MTM834204**

UNIT DESCRIPTOR : This unit identifies the competence required to perform first aid treatment to crew and / or passengers during a medical emergency on board a vessel, including the performance of immediate life saving first aid until qualified medical assistance is available, the recognition of symptoms and signs of acute illness and or injury and the taking of appropriate action.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms are elaborated in the Range of Variables</i>
1. Perform immediate life saving first aid pending the arrival of medical assistance	1.1. The priorities of <i>First Aid Care</i> are correctly applied in real or simulated first aid situation 1.2. The DRABC Action plan is correctly used to identify and control danger, loss of consciousness, loss of airway, breathing and circulation 1.3. An unconscious casualty is correctly placed in stable side position and the steps in clearing the airways to promote breathing in accordance with established first aid procedures 1.4. The correct method of Expired Air Resuscitation (EAR), External Cardiac Compression (ECC) and Cardio Pulmonary Resuscitation (CPR) is applied in real life resuscitation situation or in a simulated exercise using a mannequin
2. Recognize the symptoms and acute illness and or injury and take appropriate action	2.1. The <i>conditions requiring special first aid procedures</i> are correctly identified 2.2. A real or simulated unconscious casualty is cared for in accordance with established first aid procedures 2.3. Causes of respiratory failure and breathing difficulty are correctly identified and appropriate care is provided for a real or simulated casualty with obstructed breathing 2.4. The symptoms and signs of casualty with angina pain, heart attack and heart failure are correctly identified 2.5. The symptoms and signs of poisoning, bites and stings are correctly identified and appropriate immediate management of thee conditions is provided in real or simulated situation

	2.6. A real or simulated conscious casualty with an acute illness and or injury is cared for in accordance with established first aid procedures
3. Manage wounds and bleeding	<p>3.1. Severe external bleeding is correctly controlled in a real or simulated situation</p> <p>3.2. The symptoms and signs of severe internal bleeding are correctly identified and appropriate immediate management of these conditions is provided in a real or simulated situation</p> <p>3.3. A real or simulated laceration, abrasion and a deep puncture wound is correctly manage in accordance with established first aid procedures</p> <p>3.4. The signs of wound infections are correctly identified and a real or simulated wound infection is correctly managed in accordance with established procedures</p>
4. Manage burns	<p>4.1. Immediate rescue procedures are correctly used in real or simulated first aid situations involving a burned casualty</p> <p>4.2. The severity of burn is correctly assessed in terms of depth, position and size in accordance with established procedures</p> <p>4.3. The correct method of treatment for burns and associated shock is correctly applied in real or simulated first aid situations involving a burned casualty</p>
5. Manage bone, joint and muscle injuries	<p>5.1. Symptoms and signs of fractures (simple and complicated) are correctly recognized in accordance with established first aid procedures</p> <p>5.2. Problems and treatment associated with dislocated joints are correctly managed in accordance with established procedures</p> <p>5.3. First aid treatment of pelvic and chest injuries and fractures of limbs, including immobilization techniques is correctly performed in accordance with established procedures</p> <p>5.4. The symptoms and signs of sprains and strains are correctly identified in accordance with established procedure</p>

<p>6. Adapt first aid procedures for remote situations</p>	<p>6.1. Safety precautions needed to prevent accidents, illness and injuries and infection in remote areas situations are correctly applied in real or simulated situations</p> <p>6.2. Identify and discuss the factors involved in the prevention of heat and cold exposure</p> <p>6.3. The symptoms and signs of real or simulated casualty exposed to heat or cold are correctly identified including hyperthermia and hypothermia and appropriate management of the casualty carried out in accordance with established procedures</p> <p>6.4. A real or simulated ill or injured person in remote conditions is correctly, cared for until help arrives, including the monitoring of airway, breathing and heart beat, the control of pain, hydration and maintenance of body temperature</p> <p>6.5. A real or simulated casualty with severe injuries in a remote situation is correctly cared for, including the preparation for transport</p> <p>6.6. First aid resources and emergency equipment required for remote area situations is correctly identified and used in real or simulated situations in accordance with established first aid procedures</p>
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RANGE OF VARIABLES

VARIABLE	RANGE
1. First aid Care on board a vessel may need to be provided in situation involving :	1.1. Acute illness or injury 1.2. Laceration, abrasion and a deep puncture wounds 1.3. Respiratory failure and breathing difficulty 1.4. Shock as a result of severe injury 1.5. Abdominal, pelvic and chest injuries 1.6. Fractures of limbs 1.7. Poisoning, bites and stings 1.8. Sprains, strains and dislocations 1.9. Facial, ear and eye injuries 1.10. Suspected head, neck and back injuries
2. Conditions requiring special first aid procedures include	2.1. Explosion injuries 2.2. Burns 2.3. Poisons and envenomation 2.4. Hypothermia and hyperthermia
3. First aid resources and equipment include	3.1. Vessels/ medicine cabinet 3.2. First aid boxes 3.3. Emergency first aid carry bags 3.4. Specific first aid resources 3.5. Roller bandages 3.6. Triangular bandages 3.7. Face masks 3.8. Cleaning swabs 3.9. Cleaning brush 3.10. Cleaning materials 3.11. Medicines 3.12. Vessel's Medicine Cabinet 3.13. First Aid Boxes 3.14. Emergency first aid carry bags

EVIDENCE GUIDE

1. Critical aspects of Competency	<p>Assessment requires evidence that the candidate :</p> <ol style="list-style-type: none"> 1.1. Performed immediate life saving first aid 1.2. Recognized the symptoms and signs of acute illness and or injury and take appropriate action 1.3. Managed wounds and bleeding 1.4. Managed burns 1.5. Managed bone, joints and muscle injuries 1.6. Adapted first aid procedures for remote situation 1.7. Communicated effectively with others during provision of first aid. 1.8. Prepared report on first aid situations and activities in accordance with company and regulatory requirements
2. Underpinning knowledge and attitude	<ol style="list-style-type: none"> 2.1. Duties and responsibilities of the designated first aid officer on board a vessel 2.2. Knowledge on ways in which disease can spread on board a vessel and ways of preventing the spread 2.3. Legal issues related to administration of drugs and medicines on board a vessel 2.4. Knowledge of body structures and functions relevant to possible injury, illnesses and disease that may be encountered on board a vessel 2.5. Maritime communication techniques related to health care and receiving radio medical advice form shore based advisers 2.6. Marine publications containing information on first aid and medical treatment on board a vessel
3. Underpinning skills	<ol style="list-style-type: none"> 3.1. Medical first aid procedures 3.2. Procedures for conducting an initial patient first aid treatment 3.3. Managing injuries and medical emergencies 3.4. Managing medicine resources 3.5. Techniques for care of wounds 3.6. Correct methods of Expired Air Resuscitation (EAR), External Cardiac Compression (ECC) and Cardio Pulmonary Resuscitation (CPR)

4. Resource implications	<p>The following resources must be provided:</p> <p>4.1. Work place location</p> <p>4.2. Tools and equipment appropriate to schedule housekeeping activities and to monitor and maintain working condition</p> <p>4.3. Material relevant to the proposed activity and tasks</p>
5. Method of assessment	<p>Competency must be assessed through :</p> <p>5.1. Demonstration and questioning of related underpinning knowledge</p> <p>5.2. Written Examination</p> <p>5.3. Portfolio</p>
6. Context for assessment	<p>6.1. Competency may be assessed in workplace or in a simulated workplace setting</p> <p>6.2. Assessment shall be observed while task are being undertaken whether individually or in-group</p>

UNIT OF COMPETENCY: **PROTECT MARINE ENVIRONMENT**

UNIT CODE : **MTM834205**

UNIT DESCRIPTOR : This unit identifies the competence required to protect marine environment. It involves the development of awareness to preserve and protect marine environment.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms are elaborated in the Range of Variables</i>
1. Identify garbage disposal procedures	1.1. Relevant <i>guidelines for the implementation of garbage disposal onboard</i> are identified and applied to ensure protection of marine environment 1.2. Relevant company requirements on marine environmental protection is followed as per established practice 1.3. Appropriate <i>measures to prevent operational pollution</i> are observed and applied to prevent pollution of the marine environment in accordance with regulations and procedures 1.4. Compliance on state / territory garbage disposal procedures for the protection of the marine environment is monitored and required action is taken where incidences of non-compliance are identified
2. Perform garbage segregation	2.1. MARPOL Regulations and procedures concerning protection of marine environment are adequately followed regarding segregation of garbage 2.2. Marine environment protection programs on board are applied as per established practice 2.3. Any breach of regulations and procedures concerning protection of the marine environment are identified and associated actions are taken in accordance with regulatory requirement and procedures 2.4. Deck rating are provided with necessary information and training to ensure compliance with regulations and procedures for the protection of marine environment

<p>3. Record garbage segregation</p>	<p>3.1. Others are assisted and encouraged to observe the garbage segregation policies</p> <p>3.2. Social responsibilities in garbage disposal are observed and performed to ensure protection of marine environment</p> <p>3.3. Contents of report on garbage segregation and disposal are adequately filled-up as per established procedures</p>
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RANGE OF VARIABLES

VARIABLE	RANGE
1. Guidelines for the implementation of garbage disposal onboard	1.1. Incineration option for shipboard generated garbage 1.2. All kinds of victual, domestic and operational waste excluding fresh fish and parts thereof 1.3. Garbage for which there is a total prohibition on discharge into the sea
2. Measures to prevent operational pollution by garbage	2.1. All plastic including but not limited to synthetic ropes, synthetic fishing nets and plastic garbage bags 2.2. Disposal of any materials regulated by Annex V (Garbage) 2.3. Fixed floating flat form engaged in exploration and associated offshore processing of seabed mineral resources 2.4. Disposal into the sea of food wastes may be permitted when they have been passed through comminuter or grinder for such fixed or floating plat forms
3. Contents of the report on garbage segregation and disposal include	3.1. Report must be sent to the nearest coastal state 3.2. Contents of report must include <ul style="list-style-type: none"> 3.2.1. Name of Ship, call sign and flag 3.2.2. Type of Ship and Tonnage 3.2.3. Cargo carried 3.2.4. Date in Time 3.2.5. Position, Course, Speed at time of incident 3.2.6. Radio Channel Guarded

EVIDENCE GUIDE

1. Critical aspects of Competency	<p>Assessment requires evidence that the candidate :</p> <ul style="list-style-type: none"> 1.1. Exhibited all required safety environmental and garbage control procedures 1.2. Performed garbage segregation and proper disposal 1.3. Complied with existing company regulations and relevant MARPOL regulation 1.4. Assisted in incineration procedures 1.5. Communicated effectively with other concerning measures to protect the marine environment
2. Underpinning knowledge and attitude	<ul style="list-style-type: none"> 2.1. Knowledge of sections of relevant regulation on garbage segregation and disposal 2.2. Safety, environmental and hazard control precautions and procedures relevant to MARPOL regulations 2.3. Storage of non-bio-degradable materials onboard 2.4. Relevant ISM regulations
3. Underpinning skills	<ul style="list-style-type: none"> 3.1. Procedures for checking garbage coding on garbage segregation 3.2. Procedures for the disposal of food waste based on relevant MARPOL regulation 3.3. Procedures on ship-generated waste on non bio-degradable materials
4. Resource implications	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> 4.1. Work place location 4.2. Tools and equipment appropriate in protecting marine environment 4.3. Material relevant to the proposed activity and tasks
5. Method of assessment	<p>Competency must be assessed through :</p> <ul style="list-style-type: none"> 5.1. Demonstration and questioning of related underpinning knowledge 5.2. Written Examination 5.3. Portfolio
6. Context for assessment	<ul style="list-style-type: none"> 6.1. Competency may be assessed in workplace or in a simulated workplace setting 6.2. Assessment shall be observed while task are being undertaken whether individually or in-group

UNIT OF COMPETENCY: **COMPLY WITH EMERGENCY PROCEDURES**

UNIT CODE : **MTM834206**

UNIT DESCRIPTOR : This unit involves the knowledge, skills and attitude to take appropriate initial action on becoming aware of an emergency on board a vessel and to follow established emergency response procedures.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms are elaborated in the Range Statement</i>
1. Take action on becoming aware of an emergency	1.1. <i>Emergencies</i> are correctly recognized and identified 1.2. Response to an emergency situation follows established vessel's emergency response procedures 1.3. Correct action is taken on discovery of an actual or potential emergency in accordance with established vessel procedures 1.4. Information given on raising alarm is prompt, accurate, complete and clear
2. Follow established emergency procedures	2.1. Vessel's <i>contingency plans</i> for emergency response are known and are implemented in real and simulated emergency situations 2.2. Escape routes and internal and external communications and alarm systems are correctly used in real and simulated emergency situations in accordance with regulatory requirements and established procedures 2.3. Emergency communications and alarm signals and systems are understood and required action implemented in accordance with emergency procedures and regulatory requirements 2.4. Planned damage controls procedures for dealing with damage to the vessel and its hull are implemented in accordance with company procedures and regulatory requirements

<p>3. Follow procedures for the use of various life saving appliances</p>	<p>3.1. Participation in life saving drills confirms readiness to correctly carry out life saving procedures and use life saving appliances</p> <p>3.2. Survival equipment are correctly used in the event of emergencies</p> <p>3.3. Procedures for the use of various shipboard life saving appliances are followed in accordance with regulatory requirements, manufacturers instruction and company procedures</p>
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RANGE OF VARIABLES

VARIABLE	RANGE
1. Emergencies	1.1. Collision with another vessel 1.2. Explosion on board vessel 1.3. Impairment of integrity of hull and ingress of water 1.4. Loss of steering control 1.5. Loss of motive power 1.6. Foundering 1.7. Grounding 1.8. Beaching a vessel 1.9. Person overboard 1.10. Rescue and evacuation of injured personnel
2. Survival equipment	2.1. Life jackets 2.2. Exposure and immersion suits 2.3. Survival crafts
3. Contingency Plans	3.1. Contingency Plan in controlling fire or explosion emergency 3.2. Use of appropriate fire fighting equipment and techniques such as various types of fire extinguishers, fire blankets, fire hoses and nozzles and foam applicators 3.3. Activation of fixed fire fighting sprinklers and systems 3.4. Removal of fuel or heat source 3.5. Boundary cooling techniques 3.6. Contingency Plan in controlling flooding emergency 3.7. Use of softwood wedges and plugs to reduce water ingress 3.8. Erection and application of vertical shoring 3.9. Construction and fitting of a leak-stopping mat 3.10. Temporary repair of a ruptured pressurized pipe 3.11. Operation of a portable salvage pump

EVIDENCE GUIDE

<p>1. Critical aspects of Competency</p>	<p>Assessment requires evidence that the candidate :</p> <ul style="list-style-type: none"> 1.1. Took appropriate action in the event of discovering a shipboard emergency 1.2. Followed vessel's contingency plans for emergency response 1.3. Followed procedures for the use of various life-saving appliances 1.4. Implemented damage control following a shipboard emergency in accordance with instructions 1.5. Identified typical problems that may occur during a shipboard emergency and take appropriate action 1.6. Communicated effectively with others during shipboard emergencies 1.7. Participated in drills to prepare shipboard personnel to implement emergency response
<p>2. Underpinning knowledge and attitude</p>	<ul style="list-style-type: none"> 2.1. Knowledge of relevant maritime regulations 2.2. Navigational emergencies for vessels and appropriate action and solutions 2.3. Indications of various types of emergency situations and the action to be followed when various types of actual or potential emergency situations are identified 2.4. Emergency alarm signals and systems in use on vessels and procedures to be followed when an emergency alarm is raised 2.5. Escape routes and internal and external communications systems and alarms on board a vessel 2.6. General principles of damage and control and the manner in which watertight integrity of hull is maintained on a vessel, including the importance of preparation, control and repair 2.7. Ways of controlling damage during a flooding emergency, including the use of various shipboard items that can be used for damage control purposes such as mattresses, canvas and clothing 2.8. Maritime communication techniques used during navigational emergencies

3. Underpinning skills	<p>3.1. Taking initial action during real and simulated emergency situation</p> <p>3.2. Implementing emergency during a real and simulated emergency situations</p> <p>3.3. Identifying and evaluating problems that may occur during a shipboard emergency and determining appropriate courses of action</p> <p>3.4. Applying safety and life saving precautions and procedures during emergency situations on board vessel</p> <p>3.5. Participating in drills aimed at preparing shipboard personnel to implement emergency response plans</p>
4. Resource implications	<p>The following resources must be provided:</p> <p>4.1. Work place location</p> <p>4.2. Tools and equipment appropriate to schedule housekeeping activities and to monitor and maintain working condition</p> <p>4.3. Material relevant to the proposed activity and tasks</p>
5. Method of assessment	<p>Competency must be assessed through :</p> <p>5.1. Demonstration and questioning of related underpinning knowledge</p> <p>5.2. Written Examination</p> <p>5.3. Portfolio</p>
6. Context for assessment	<p>6.1. Competency may be assessed in workplace or in a simulated workplace setting</p> <p>6.2. Assessment shall be observed while task are being undertaken whether individually or in-group</p>

CORE COMPETENCIES

UNIT OF COMPETENCY: APPLY DECKHAND SKILLS ABOARD A FISHING VESSEL

UNIT CODE: AGR641301

UNIT DESCRIPTOR : This unit covers the skills and knowledge required to carry out basic deckhand duties aboard a fishing vessel including rope work, assisting in anchoring, mooring, operating winches and windlasses and preparing a fishing vessel for sea.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized</i> terms are elaborated in the Range of Variables
1. Use and maintain ropes and perform basic knots, bends, hitches, splices and common whipping	1.1 Operations are carried out according to established safety rules and regulations. 1.2 Rope materials, methods of construction, measurement methods, physical characteristics and common areas of use are correctly identified. 1.3 Ropes are checked for wear, maintained in accordance with enterprise procedures and manufacturers' guidelines, and coiled and stowed correctly. 1.4 Knots, bends and hitches are tied neatly and securely and are used according to their correct application. 1.5 Ropes are spliced neatly and securely according to their correct application and rope ends are whipped, where appropriate, to maintain good condition.
2. Operate winches, capstans and windlasses	2.1 Operations are carried out according to established safety rules and regulations . 2.2 Winches, capstans and windlasses are selected, as appropriate, checked and prepared for the operation prior to use. 2.3 Winches, capstans and windlasses are safely operated to carry out fishing vessel deck operations in accordance with operational requirements and manufacturers' instructions, where appropriate.
3. Secure the vessel at anchor	3.1 Securing of the vessel is carried out according to established safety rules and regulations. 3.2 Preparation of the anchor and equipment prior to letting go is appropriate to the depth of water, weather and sea conditions, and tidal range in area of operation.

	<p>3.3 Quantity of anchor cable run out or recovered complies with orders provided.</p> <p>3.4 Control of the cable is maintained within safe operating limits during normal operation.</p> <p>3.5 Degree to which the anchor and equipment is secured on completion of anchoring operations is appropriate to forecast conditions and complies with orders provided.</p> <p>3.6 Manufacturers' recommendations and anchoring requirements are followed during anchor winch operations.</p> <p>3.7 Anchoring area is kept free of loose ropes, wires and debris throughout all operations.</p>
4. Secure and adjust the vessel's position during mooring operations	<p>4.1 Mooring of the vessel is carried out according to established safety rules and regulations.</p> <p>4.2 Mooring lines and associated equipment are handled safely and efficiently at all times.</p> <p>4.3 Mooring area is kept free of loose ropes, wires and debris throughout all operations.</p> <p>4.4 Tension on mooring lines is maintained at a level appropriate to the stage and nature of the operation when warping the vessel or maintaining position.</p> <p>4.5 Reports of incidents made to supervisory personnel are complete and at a time designed to maximize the mooring security of the vessel.</p> <p>4.6 Mooring lines are secured in accordance with orders provided, forecast tidal conditions and planned vessel operations.</p> <p>4.7 Equipment malfunction or problems during operations are promptly recognized and appropriate corrective action is taken.</p> <p>4.8 Communication is clear and concise at all times.</p>
5. Monitor the situation of the vessel when moored or anchored	<p>5.1 Monitoring operations are planned and carried out in accordance with established safety rules and regulations.</p> <p>5.2 Frequency, timing and coverage of scheduled checks and inspections comply with watch-keeping instructions.</p> <p>5.3 Action taken in the event of irregularities or abnormal conditions is appropriate to their significance and within the job holder's responsibility to implement.</p> <p>5.4 Reports of incidents made to supervisory personnel are complete and at a time designed to maximize the safety and integrity of the vessel.</p> <p>5.5 Restrictions on access to the vessel by visitors are in accordance with watch-keeping instructions.</p>

<p>6. Secure the vessel for and at sea</p>	<p>6.1 Checks on vessel security are planned and carried out in accordance with established safety and security rules and regulations.</p> <p>6.2 Coverage and frequency of checks and inspections on the vessel's seaworthiness comply with orders received.</p> <p>6.3 Watertight integrity is checked and appropriate action is taken to prepare for prevailing and forecast weather and sea conditions.</p> <p>6.4 Degree to which the vessel is secured is appropriate to prevailing and forecast conditions and complies with orders received.</p> <p>6.5 Action taken in the event of irregularities is appropriate to their significance and within the job holder's responsibility to implement.</p> <p>6.6 Reports of conditions made to supervisory personnel are complete, accurate and completed in accordance with enterprise procedures and regulatory requirements.</p> <p>6.7 Reports to supervisory personnel on irregularities beyond the job holder's ability to rectify are made in time to enable remedial action to be taken.</p>
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RANGE OF VARIABLES

VARIABLE	RANGE
1 Operations:	<ul style="list-style-type: none"> 1.1. manual handling of equipment 1.2. communications and signalling 1.3. rope work 1.4. at sea and ashore 1.5. varying weather conditions 1.6. three, four or eight-strand rope 1.7. wire rope 1.8. powered winch, capstan and windlass 1.9. hydraulic, electric and mechanical 1.10. cable and rope winches 1.11. net haulers 1.12. pot or trap haulers 1.13. anchor winches 1.14. anchoring: <ul style="list-style-type: none"> 1.14.1 routine 1.14.2 emergency 1.14.3 letting go and recovery 1.15. mooring: <ul style="list-style-type: none"> 1.15.1 mooring and unmooring to a single point 1.15.2 berthing and unberthing to a wharf 1.15.3 adjustment from both fore and aft mooring positions 1.15.4 rigging and recovering means of access to the vessel 1.16. monitoring: <ul style="list-style-type: none"> 1.16.1 routine fire and security rounds and inspections 1.16.2 display of signals, flags, lights and shapes 1.16.3 mooring integrity during tidal movements 1.16.4 safe access to and about the vessel 1.16.5 visitors to the vessel 1.16.6 environmental impact 1.16.7 departure 1.17. securing: <ul style="list-style-type: none"> 1.17.1 prior to departure 1.17.2 long or short voyages 1.17.3 completion of operations and maintenance 1.17.4 heavy weather 1.17.5 routine situations.

2 Safety rules and regulations:	2.1. codes of safe work practice: 2.2 industry 2.3 enterprise 2.4 International Labour Organization (ILO) 2.5 Dept. of Labor and Employment (DOLE) 2.6 legislation.
3 Mooring:	3.1. single point 3.2. berthed alongside a wharf.
4 Corrective action:	4.1. adjustment 4.2. temporary line repair 4.3. communication.
5. Carried out:	5.1. by day 5.2. by night 5.3. adverse weather conditions.
6. Irregularities or abnormal conditions:	6.1. affecting the safety and integrity of: 6.2. vessel 6.3. crew 6.4. equipment 6.5. materials, such as cargo.
7. Coverage:	7.1. accommodation spaces 7.2. personal facilities 7.3. galley 7.4. deck area 7.5. storage / cargo spaces 7.6. engine room 7.7. wheelhouse 7.8. processing area.
8. Secured:	8.1. openings 8.2. anchors 8.3. lifting appliances and associated equipment 8.4. galley, stores and equipment 8.5. accommodation and storage / cargo spaces 8.6. material on deck and below, such as cargo 8.7. large objects likely to move in a sea way 8.8. slack tanks pressed up.

EVIDENCE GUIDE

<p>1. Critical Aspects of Competency</p>	<p>Assessment requires evidence that the candidate :</p> <ol style="list-style-type: none"> 1.1. used, maintained and repaired ropes and lines 1.2. performed knots, bends, hitches, splicing and whipping 1.3. prepared winches and capstans associated with fishing, for use and control during operation 1.4. prepared anchor equipment, for use and control during operation 1.5. secured anchoring equipment, winches and capstans on completion of operations 1.6. performed mooring operations to completion 1.7. secured mooring area on completion of operations 1.8. identified malfunction or possible problems and implement contingency plans 1.9. performed routine checks and inspections of vessel: <ol style="list-style-type: none"> 1.19.1 watch-keeping duties 1.19.2 security 1.19.3 seaworthiness 1.10. secured the vessel 1.11. dealt with security contingencies 1.12. reported on conditions 1.13. monitored and controlled access. <p>Assessment must confirm knowledge of:</p> <ol style="list-style-type: none"> 1.14. safety rules and regulations during operation procedures for entering dangerous and enclosed spaces.
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<p>2. Underpinning Knowledge and Attitudes</p>	<p>The essential knowledge and understanding a person needs to perform work to the required standard include:</p> <p>2.1 Procedures relating to:</p> <p>2.1.1 splicing rope and tying common knots, bends and hitches</p> <p>2.1.2 maintenance of different types of rope</p> <p>2.1.3 routine and emergency operation of anchors</p> <p>2.1.4 use of winches, capstans and windlasses</p> <p>2.1.5 preparing deck machinery for use in ambient conditions</p> <p>2.1.6 securing all areas and equipment for sea prior to departure</p> <p>2.1.7 effect of the rise and fall of tide when berthed</p> <p>2.1.8 warping a vessel to various configurations at a wharf</p> <p>2.1.9 maintaining a deck watch in port</p> <p>2.1.10 displaying signals, flags, lights and shapes</p> <p>2.1.11 operating powered equipment in all modes, including emergency operation</p> <p>2.1.12 checking and inspecting the seaworthiness of the vessel</p> <p>2.2 Principles relating to:</p> <p>2.2.1 the correct application of common knots, bends and hitches</p> <p>2.2.2 how a vessel is made fast to the wharf</p> <p>2.2.3 how vessel displacement or profile, and prevailing wind or current affect anchoring operations</p> <p>2.2.4 how a vessel normally lies to an anchor and cable</p> <p>2.2.5 mooring systems, including the specific functions of the mooring leads</p> <p>2.2.6 effects of unequal tension on mooring lines and the use of fixed mooring lines</p> <p>2.3 information relating to:</p> <p>2.3.1 codes of safe work practice and safety rules and regulation</p> <p>2.3.2 different configurations of mooring lines for various parts of a vessel</p> <p>2.3.3 knots, bends and hitches and their applications</p> <p>2.3.4 anchor cable markings</p> <p>2.3.5 different types of anchor</p> <p>2.3.6 anchor, cable and equipment on a specific vessel</p>
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	<p>2.3.7 characteristics of different types of mooring</p> <p>2.3.8 ropes</p> <p>2.3.9 hazards that could occur if the operation is not controlled properly</p> <p>2.3.10 indications of, and hazards associated with, breaking mooring lines</p> <p>2.3.11 requirements for access equipment</p> <p>2.3.12 means of access</p> <p>2.3.13 securing the vessel for sea</p> <p>2.3.14 appropriate health and hygiene practices</p> <p>2.3.15 status of safety equipment</p> <p>2.3.16 construction of the vessel sufficient to understand which areas need to be made watertight</p> <p>2.3.17 the method of operation of cargo-lifting and securing equipment on how to make the vessel watertight.</p>
3 Underpinning Skills	<p>The essential skills a person needs to perform work to the required standard include:</p> <p>3.1. handling ropes and wires:</p> <p>3.1.1. identifying different rope material and construction</p> <p>3.1.2. using knots, bends and hitches and securing arrangements</p> <p>3.1.3. preparing and throwing a heaving line</p> <p>3.1.4. tying an overhand knot, figure-eight knot, reef knot, bowline and cod-end knot</p> <p>3.1.5. tying a half hitch, clove hitch, round turn and two half hitches, rolling hitch and timber hitch</p> <p>3.1.6. tying a sheet bend and a double-sheet bend</p> <p>3.1.7. performing an eye splice, back splice and a short splice</p> <p>3.1.8. performing common whipping on ropes and line</p> <p>3.1.9. coiling and stowing ropes</p> <p>3.1.10. using stoppers</p> <p>3.2. Letting go and weighing anchor:</p> <p>3.2.1. single and twin anchor (such as running moor) operations</p> <p>3.2.2. recovering a foul hawse</p> <p>3.2.3. removing debris from an anchor</p> <p>3.2.4. handling anchor-securing arrangements</p> <p>3.2.5. displaying signals</p> <p>3.2.6. preparing an anchor buoy</p> <p>3.2.7. communicating with controller</p> <p>3.3. Using and identifying synthetic rope and wire mooring lines:</p> <p>3.3.1. fore and aft springs</p>

	<ul style="list-style-type: none"> 3.3.2. back springs 3.3.3. bow and stern ropes 3.4. Breast lines 3.5. Assisting in different types of mooring operations: <ul style="list-style-type: none"> 3.5.1. making fast and letting go fore and aft to a wharf 3.5.2. making fast and letting go to a single-point mooring 3.5.3. preparing area for operation 3.5.4. using springs that manoeuvre a vessel to and from a wharf 3.5.5. adjusting mooring during a port stay 3.5.6. rigging safe access to a vessel 3.6. Taking contingency actions when encountering a malfunction or problem caused by: <ul style="list-style-type: none"> 3.6.1. failure of moorings and equipment 3.6.2. damage to moorings 3.6.3. insufficient mooring length or strength 3.6.4. poor leads 3.6.5. inability to maintain vessel in position 3.6.6. adverse weather 3.6.7. cargo or cargo-securing arrangements 3.7. Using different anchoring and mooring winches: <ul style="list-style-type: none"> 3.7.1. tension winches operated in manual or self-tensioning modes 3.7.2. stand-alone winches 3.7.3. windlasses and capstans with drum ends 3.8. Using power-operated equipment: <ul style="list-style-type: none"> 3.8.1. cranes and derricks 3.8.2. capstans 3.8.3. winches associated with fishing 3.9. Securing equipment and objects for sea passage, transit in port or ready for use, including: <ul style="list-style-type: none"> 3.9.1. containers 3.9.2. machinery spares 3.9.3. large pieces of vessel equipment such as gangways, spare fishing gear and anchors 3.9.4. cargo 3.9.5. galley utensils and stores 3.9.6. personal items 3.9.7. drawers and cupboard doors in accommodation and storage spaces
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	<p>3.10. Using securing arrangements such as:</p> <p>3.10.1. lashing</p> <p>3.10.2. impounding</p> <p>3.10.3. patent securing arrangements</p> <p>3.10.4. checking cargo condition such as catch temperature.</p> <p>3.11 Literacy skills used for:</p> <p>3.12 reading safety rules and regulations.</p> <p>3.13 Numeracy skills used for:</p> <p>3.13 reading levels of tanks and void spaces</p> <p>3.14 reading temperature-monitoring devices</p> <p>3.15 estimating safe working loads of ropes and wires.</p>
4. Resource Implication	<p>Resources may include:</p> <p>4.1 operational vessel with the range of equipment described above</p> <p>4.2 facilities for negotiating buoyage systems and traffic.</p>
5. Methods of Assessment	<p>Competency should be assessed:</p> <p>5.1. through direct observation / demonstration</p> <p>5.2. portfolio</p>
6. Context of Assessment	<p>6.1 Assessment should be in a workplace.</p> <p>6.2 Demonstration of competency over time and on a number of occasions.</p>

UNIT OF COMPETENCY: LOAD AND UNLOAD GOODS/CARGO

UNIT CODE: AGR641302

UNIT DESCRIPTOR This unit covers the skills and knowledge required to load and unload goods and cargo, including loading and unloading goods, securing and protecting the load and completing all required documentation

ELEMENT	PERFORMANCE CRITERIA <i>Italicized</i> terms are elaborated in the Range of Variables
1. Load and unload goods/cargo	<ul style="list-style-type: none">1.1 Load characteristics are identified and taken into account when determining appropriate loading and unloading procedures1.2 Dangerous or hazardous goods are identified and handled in accordance with relevant regulations/permit requirements1.3 Load is packed/unpacked to make safe and effective use of available spaces1.4 Goods/cargo are loaded in accordance with relevant mass and loading regulations and workplace procedures1.5 Lifting aids and appliances are selected and used to aid loading procedures in compliance with workplace procedures and safety legislation1.6 Unloading activities are conducted in a safe and efficient manner taking into account suitable locations, stowage, safe use of equipment and the balance of the remaining load1.7 Goods requiring special handling and/or documentation are identified and appropriate procedures followed1.8 Relocated material is restacked appropriate for the transport method, safe height, weight loading, size and crushability of the goods

<p>2. Secure and protect load</p>	<p>2.1 The distribution of the load is checked to ensure that it is even, legal and within safe working capacity</p> <p>2.2 Load is checked to ensure that dangerous goods and hazardous substances are appropriately segregated in accordance with relevant regulations</p> <p>2.3 Load is secured using the correct load restraint and protection equipment for different loads, carrying and storage conditions</p> <p>2.4 The load is protected in accordance with legal and workplace safety requirements</p>
<p>3. Complete documentation</p>	<p>3.1 The load is inspected and checked for security to travel in accordance with relevant regulations/permit requirements</p> <p>3.2 All required documentation for the goods is completed in accordance with workplace requirements</p>

RANGE OF VARIABLES

VARIABLE	RANGE
1 OH&S requirements may include:	1.1 OH&S legal requirements 1.2 Enterprise OH&S policies, procedures and programs
2 Work in carried out in accordance with regulations. Regulatory requirements may include:	2.1 Relevant regulations regarding food processing and food safety regulations 2.2 Department of Health – Food Establishments – Code of Sanitation of the Philippines (P.D.856) 2.3 Environment Management Bureau regulations regarding emissions, waste treatment, noise and effluent treatment and control
3 Hygiene and sanitation requirements may include:	3.1 Department of Health – Food Establishments – Code of Sanitation of the Philippines (P.D.856) 3.2 Requirements set out by Bureau of Food and Drugs 3.3 Workplace requirements
4 Workplace requirements may include:	4.1 Work instructions 4.2 Standard operating procedures 4.3 OH&S requirements 4.4 Quality assurance requirements 4.5 Equipment manufacturers' advice 4.6 Material Safety Data Sheets 4.7 Codes of Practice and related advice
5 General Context:	5.1 Work must be carried out in compliance with the relevant regulations/permit requirements including those of the relevant roads and traffic authority concerning the loading of goods/cargo 5.2 Work is performed under some supervision generally within a team environment 5.3 Work involves the application of the basic principles, routine procedures and regulatory/permit requirements to the loading and unloading of goods/cargo
6 Worksite environment	6.1 Operations may be conducted in a range of work environments by day or night 6.2 Customers may be internal or external 6.3 Workplaces may comprise large, medium or small worksites 6.4 Work may be conducted in: 6.4.1. restricted spaces 6.4.2. exposed conditions 6.4.3. controlled or open environments 6.5 Goods/cargo to be loaded or unloaded may require special precautions

	<p>6.6 Loads to be shifted may be:</p> <ul style="list-style-type: none"> 6.6.1. irregularly shaped 6.6.2. packaged or unpackaged 6.6.3. labelled or unlabelled 6.6.4. palletted or unpalletted <p>6.7 Hazards in the work area may include exposure to:</p> <ul style="list-style-type: none"> 6.7.1. chemicals 6.7.2. dangerous or hazardous substances 6.7.3. movements of equipment, goods and materials <p>6.8 Personnel in the work area may include:</p> <ul style="list-style-type: none"> 6.8.1. workplace personnel 6.8.2. site visitors 6.8.3. contractors 6.8.4. official representatives <p>6.9 Communication in the work area may include:</p> <ul style="list-style-type: none"> 6.9.1. phone 6.9.2. electronic data interchange 6.9.3. fax 6.9.4. e-mail 6.9.5. Internet 6.9.6. radio 6.9.10 oral, aural or signed communications <p>6.10 Loading operations may be carried out both manually and with the aid of lifting equipment and/or appliances</p> <p>6.11 Depending on the type of organisation concerned and the local terminology used, workplace procedures may include:</p> <ul style="list-style-type: none"> 6.11.1. company procedures 6.11.2. enterprise procedures 6.11.3. organisational procedures 6.11.4. established procedures <p>6.12 Personal protection equipment may include:</p> <ul style="list-style-type: none"> 6.12.1. gloves 6.12.2. safety headwear and footwear 6.12.3. safety glasses 6.12.4. two-way radios <p>6.13 high visibility clothing</p>
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<p>7 Sources of information/documentation:</p>	<p>7.1 Information/documents may include:</p> <p>7.1.1. goods identification numbers and codes,</p> <p>7.1.2. manifests, bar codes, goods and container identification</p> <p>7.1.3.manufacturer's specifications for equipment/tools</p> <p>7.1.4.workplace procedures and policies for the loading and unloading of goods/cargo</p> <p>7.1.5. supplier and/or client instructions</p> <p>7.1.6.material safety data sheets</p> <p>7.1.7.EPGs and Initial Response Guide (HB76:1998 or equivalent)</p> <p>7.1.8.codes of practice including the manual handling</p> <p>7.2 award, enterprise bargaining agreement, other industrial arrangements</p> <p>7.3quality assurance procedures</p> <p>7.4emergency procedures</p> <p>7.5Load Restraint Guidelines</p>
<p>8 Applicable regulations and legislation:</p>	<p>8.1 Applicable regulations and legislation may include relevant standards and regulations including mass and loading regulations</p> <p>8.2. Philippine and international regulations and codes of practice for the handling and transport of dangerous goods and hazardous substances.</p> <p>8.3. Relevant environmental protection legislation</p> <p>8.4. Relevant OHS legislation</p>

EVIDENCE GUIDE

<p>1. Critical aspects of Competency</p>	<p>Assessment requires evidences that the candidate :</p> <ol style="list-style-type: none"> 1.1. identified load characteristics, dangerous or hazardous goods, loading equipment and related practices and take appropriate action 1.2. identified class and subsidiary risk labels for dangerous goods and take appropriate action 1.3. followed applicable codes 1.4. safely loaded and unloaded goods following workplace procedures 1.5. distributed and secured load for safe transport in accordance with regulations 1.6. located, interpreted and applied relevant information 1.7. provided customer/client service and work effectively with others 1.8. conveyed information in written and oral form when loading/unloading 1.9. maintained workplace loading/unloading records 1.10. selected and used appropriate workplace colloquial and technical language and communication technologies in the workplace context
<p>2. Underpinning Knowledge and Attitudes</p>	<p>Knowledge of:</p> <ol style="list-style-type: none"> 2.1. Loading regulations 2.2. Philippine and international regulations and codes of practice for the handling and transport of dangerous goods and hazardous substances 2.3. OHS and procedures and guidelines concerning the lifting and movement of loads 2.4. Risks when loading and unloading goods/cargo and related precautions to control the risk 2.5. Workplace procedures and policies for the loading and unloading of goods/cargo 2.6. Housekeeping standards procedures required in the workplace 2.7. Methods of securing a load 2.8. Site layout and obstacles 2.9. Ability to identify and correctly use equipment required to load and unload goods/cargo 2.10. Ability to modify activities depending on differing workplace contexts, risk situations and environments 2.11. Ability to read and comprehend simple statements

	<p>2.12 Ability to identify containers and goods coding, markings and, where applicable, emergency information panels and take appropriate action</p> <p>2.13. Ability to estimate the size shape and special requirements of loads and take appropriate action</p> <p>2.14. Ability to safely use manual handling techniques and to operate manually-operated load shifting equipment</p>
3. Underpinning Skills	<p>3.1. Planning and organizing work (time management)</p> <p>3.2. Working with others and in teams</p>
4. Resource Implication	<p>The following resources should be provided:</p> <p>4.1. Workplace location and access to workplace policies</p> <p>4.2. Materials relevant to the proposed activity and tasks</p>
5 Methods of Assessment	<p>Competency should be assessed:</p> <p>5.1. Through direct observation / demonstration</p> <p>5.2. Portfolio</p>
6. Context of Assessment	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <p>6.1. participate in a range of exercises, case studies and other real and simulated practical and knowledge assessments that demonstrate the skills and knowledge to load and unload goods/cargo, and/or</p> <p>6.2. load and unload goods/cargo in an appropriate range of operational situations</p>

UNIT OF COMPETENCY: ASSEMBLE AND REPAIR DAMAGED NETTING

UNIT CODE: AGR641303

UNIT DESCRIPTOR : This unit covers the skills and knowledge required to repair various types of damage that occurs to the netting material used for fish or prawn trawls, purse seines, beach seines or gill nets.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized</i> terms are elaborated in the Range of Variables
1. Prepare netting material for repair	<ul style="list-style-type: none">1.1 Netting material is arranged and repair tools organized to maximize job efficiency and safety.1.2 Material required for the repair operation is identified by measuring existing material or by reference to a gear plan.1.3 Damaged netting is removed using net work tools and disposed of to eliminate environmental impact according to enterprise procedures.1.4 Retained netting is prepared ready to accept replacement.1.5 Replacement netting is shaped with net repair tools.1.6 Replacement netting is strengthened according to the gear plan or supervisor's instructions before being added to the net.
2. Mend holes and rips using twine	<ul style="list-style-type: none">2.1 Starting points are identified and twine is secured to the netting according to supervisor's instructions.2.2 Twine is used to tie knots that make meshes to resemble original netting.2.3 Twine is secured at the end of the repair according to supervisor's instructions.
3. Mend large scale damage using netting material	<ul style="list-style-type: none">3.1 Starting points are identified and twine is secured to the netting according to supervisor's instructions.3.2 Existing and replacement material is joined using twine and knots to resemble original netting.3.3 Existing and replacement material is joined using twine and lacing to resemble original netting.

RANGE OF VARIABLES

VARIABLE	RANGE
1. Material:	1.1 gill netting: 1.1.1 monofilament 1.1.2 multi-monofilament 2.1. purse seine netting: 1.1.3 knotted and knotless netting 1.1.4 braided twine 1.1.5 twisted twine 1.1.6 polyethylene (PE) 1.1.7 polyamide (nylon) (PA) 1.1.8 strengthening ropes.
2. Tools:	2.1 netting needles: 2.1.1 bone 2.1.2 flat 2.2 knives 2.3 scissors 2.4 measuring devices: 2.4.1 marked rod 2.4.2 mesh gauge 2.4.3 ruler 2.5 stands 2.6 tensioning devices.
3. Efficiency:	3.1 posture of workers 3.2 safety of working area 3.3 proximity to resources 3.4 worker comfort 3.5 speed of work.
4. Repair operation:	4.1 holes 4.2 rips 4.3 patches 4.4 joining two panels with: 4.4.1 sewing 4.4.2 lacing 4.4.3 additional strengthening ropes 4.4.4 different sized meshes 4.5 patching.
5. Measuring:	5.1. twine: 5.1.1. ply 5.1.2. diameter 5.1.3. tex, Rtex

	5.2. material type: 5.2.1. PE 5.2.2. PA 5.2.3. monofilament 5.2.4. braided 5.2.5. twisted 5.3. mesh size for mending purposes 5.4. mesh size for fisheries regulation purposes.
6. Prepared:	6.1. knots: 6.1.1. cleaned off 6.1.2. remaining 6.2. starting point 6.3. end point 6.4. all other meshes either: 6.4.1. points or 6.4.2. meshes.
7. Shaped:	7.1 all meshes 7.2 all points 7.3 all bars 7.4 combinations of above to form tapers.
8. Strengthened:	8.1 selvedge 8.2 bordered with stronger netting 8.3 double twine 8.4 gathering meshes 8.5 strengthening ropes.
9. Secured:	9.1 double sheet bend 9.2 sheet bend with overhand knot.
10. Knots:	10.1 double sheet bend 10.2 sheet bend tied horizontally and vertically 10.3 side knot: 10.3.1 net maker's 10.3.2 half hitches 10.4 rolling hitch or hanging knots 10.5 baiting 10.6 joining (fisherman's) knot 10.7 sewn with meshes horizontal 10.8 sewn with meshes vertical.
11. Netting:	11.1 regular meshes of netting 11.2 meshes running through a join in two panels 11.3 meshes along the side of a panel: 11.3.1 all bar taper decreasing along a hung edge 11.3.2 all bar taper increasing along a hung edge 11.3.3 combinations of points, meshes and bars to form a taper.

12. Joined:	12.1 mesh to mesh 12.2 point to point 12.3 paper to taper 12.4 gathering meshes together.
13. Lacing:	13.1. temporary mending 13.2. in seine netting 13.3. two panels together 13.4. including strengthening ropes.

EVIDENCE GUIDE

<p>1. Critical Aspects of Competency</p>	<p>Assessment requires evidences that the candidate:</p> <ul style="list-style-type: none"> 1.1 repaired various types of damage that occurs to the netting material used for fish or prawn trawls, purse seines, beach seines or gill nets 1.2 mended damage to hung areas of netting 1.3 repaired large scale damage to netting material by sewing in patches and panels 1.4 mended rips in netting. <p>Assessment must confirm knowledge of:</p> <ul style="list-style-type: none"> 1.5 how a gear plan describes a net.
<p>2. Underpinning Knowledge and Attitudes</p>	<p>The essential knowledge and understanding a person needs to perform work to the required standard include:</p> <ul style="list-style-type: none"> 2.1 factors which contribute to an efficient, fast and safe net mending job 2.2 naming, identifying and understanding different netting terms 2.3 order in which knots are tied to form netting material 2.4 recognizing polyethylene and polyamide netting 2.5 measuring different types of netting 2.6 using a taper table to design netting panels of a required depth, width or taper 2.7 how a gear plan describes a net.
<p>3. Underpinning Skills</p>	<p>The essential skills a person needs to perform work to the required standards include:</p> <ul style="list-style-type: none"> 1.2 using the net mending tools listed in the range of variables 1.3 preparing repair jobs by establishing start and end points and either meshes or points in between 1.4 cutting tapers into netting material 1.5 strengthening netting material 1.6 mending rips and holes by sewing twine and knots listed 1.7 repairing large scale damage to netting material by sewing in patches and panels 1.8 mending damage to hung areas of netting 1.9 joining panels of netting of different sized meshes. <p>Literacy skills used for:</p> <ul style="list-style-type: none"> 1.10 reading tables describing the effect of tapers on panel shape 1.11 interpreting the abbreviations on a gear plan.

	<p>Numeracy skills used for:</p> <p>3.11. counting the ply of twine</p> <p>3.12. measuring the diameter of twine</p> <p>3.13. counting meshes</p> <p>3.14. calculating joining ratios.</p>
4. Resource Implication	<p>Resources may include:</p> <p>4.1 different types of netting requiring repair</p> <p>4.2 fully operational net repair area.</p>
5. Methods of Assessment	<p>Competency should be assessed:</p> <p>5.1 through direct observation / demonstration</p> <p>5.2 portfolio</p>
6. Context of Assessment	<p>6.1 Assessment should be in a workplace.</p> <p>6.2 Demonstration of competency over time and on a number of occasions.</p>

SECTION 3 TRAINING STANDARDS

These guidelines are set to provide the Technical and Vocational Education and Training (TVET) providers with information and other important requirements to consider when designing training programs for **Fish Capture NC I (Ultimo)**.

3.1 CURRICULUM DESIGN

Course Title: **FISH CAPTURE (ULTIMO)**

Level: **NC I**

Course Description:

This course is designed to enhance the knowledge, desirable skills and attitudes of Fish Capture NC I (Ultimo) in accordance with industry standards. It covers Basic, Common and Core Competencies such as:

BASIC COMPETENCIES

Unit of Competency	Learning Outcomes	Methodology	Assessment Approach
1. Receive and respond to workplace communication	<ul style="list-style-type: none">• Explain routinary speaking & messages in a workplace.• Follow routinary speaking & message• Perform work duties following written notices.	<ul style="list-style-type: none">• Group discussion• Interaction	<ul style="list-style-type: none">• Interviews/questioning• Observation
2. Work with others	<ul style="list-style-type: none">• Develop effective workplace relationship.• Contribute to work group activities.	<ul style="list-style-type: none">• Group discussion• Interaction	<ul style="list-style-type: none">• Interviews/questioning• Demonstration• Observation
3. Demonstrate work values	<ul style="list-style-type: none">• Define the purpose of work• Apply work values/ethics• Deal with ethical problems• Maintain integrity of conduct in the workplace	<ul style="list-style-type: none">• Group discussion• Interaction	<ul style="list-style-type: none">• Demonstration• Observation• Interviews/questioning
4. Practice housekeeping procedures	<ul style="list-style-type: none">• Sort and remove unnecessary items• Arrange items• Maintain work areas, tools and equipment• Follow standardize work process and procedures• Perform work spontaneously	<ul style="list-style-type: none">• Group discussion• Interaction	<ul style="list-style-type: none">• Demonstration• Observation• Interviews/questioning

COMMON COMPETENCIES FOR AGRI-FISHERY

Unit of Competency	Learning Outcomes	Methodology	Assessment Approach
1. Apply safety measures	1.1 Determine areas of concern for safety measures 1.2 Apply appropriate safety measures 1.3 Safekeep and maintain materials, tools and equipment. 1.4 Dispose waste materials and outfit	<ul style="list-style-type: none"> • Self-paced/modular • Lecture /Discussion • Practical demonstration • Visit/tour • Visual aids 	<ul style="list-style-type: none"> • Oral/written examination • Interviews • Direct observation • Practical demonstration
2. Use of farm tools and equipment	2.1 Prepare and use farm tools 2.2 Prepare and operate farm equipment 2.3 Observe safety precautions in handling farm tools and equipment. 2.4 Carry out routine maintenance and storage of tools and equipment	<ul style="list-style-type: none"> • Self-paced/modular • Lecture /Discussion • Practical demonstration • Visit/tour • Visual aids 	<ul style="list-style-type: none"> • Oral/written examination • Interviews • Direct observation • Practical demonstration
3. Perform estimation and basic calculation	3.1 Perform estimation activities 3.2 Perform basic workplace calculation 3.3 Apply corrective measures as necessary	<ul style="list-style-type: none"> • Self-paced/modular • Lecture /Discussion • Practical demonstration • Interaction • Practical exercise • Visual aids 	<ul style="list-style-type: none"> • Oral/written examination • Interviews • Direct observation • Practical demonstration • Practical exercise
4. Apply food safety and sanitation	4.1 Wear personal protective equipment 4.2 Observe personal hygiene and good grooming 4.3 Implement food sanitation practices 4.4 Render safety measures and first aid procedures 4.5 Implement housekeeping activities	<ul style="list-style-type: none"> • Demonstration • Dual training • Individual Self-paced learning • Lecture 	<ul style="list-style-type: none"> • Written examination • Demonstration of practical skills • Direct observation • Interview

COMMON COMPETENCIES FOR MARITIME

Unit of Competency	Learning Outcomes	Methodology	Assessment Approach
1. Prevent and fight fire	1.1 Implement fire prevention measures and procedures on board a vessel. 1.2 Check the capability of fire detection and fire fighting equipment and system. 1.3 Initiate any required maintenance 1.4 Simulate on board fire fighting and search and rescue activities 1.5 Implement OHS principles and policies when carrying out fire fighting duties 1.6 Communicate effectively with others during fire emergencies	<ul style="list-style-type: none"> • Discussion • Lecture • Demonstration • Simulation 	<ul style="list-style-type: none"> • Observation • Demonstration • Practical performance
2. Provide first aid treatment on board	2.1 Simulate immediate life-saving first aid 2.2 Simulate action on recognized symptoms and acute illness / injury 2.3 Simulate action on wounds, bleeding, burns, bone, joint and muscle injuries	<ul style="list-style-type: none"> • Discussion • Lecture • Demonstration • Simulation 	<ul style="list-style-type: none"> • Observation • Demonstration • Practical performance
3. Protect marine environment	3.1 Simulate garbage disposal procedures 3.2 Simulate garbage segregation 3.3 Record garbage segregation and disposal	<ul style="list-style-type: none"> • Discussion • Lecture • Demonstration • Simulation 	<ul style="list-style-type: none"> • Observation • Demonstration • Practical performance
4. Comply with emergency procedures	4.1 Simulate correct action on becoming aware of an emergency in accordance with vessel procedures 4.2 Simulate emergency procedures and contingency plans 4.3 Simulate procedures for the use of various survival equipment	<ul style="list-style-type: none"> • Discussion • Lecture • Demonstration • Simulation 	<ul style="list-style-type: none"> • Observation • Demonstration • Practical performance

CORE COMPETENCIES

Unit of Competency	Learning Outcomes	Methodology	Assessment Approach
1. Apply deckhand skills aboard a fishing vessel	1.1 Observe safety rules and regulations 1.2 Use, maintain and repair ropes and lines 1.3 Perform knots, bends, hitches, splicing and whipping 1.4 Prepare winches and capstans associated with fishing, for use and control during operation 1.5 Prepare anchor equipment, for use and control during operation 1.6 Use power-operated equipment 1.7 Secure the vessel at anchor 1.8 Secure and adjust the vessel's position during mooring operations. 1.9 Identify malfunction or possible problems and implement contingency plans 1.10 Perform routine checks and inspections of vessel 1.11 Monitor and control access 1.12 Secure the vessel for and at sea 1.13 Report on conditions	<ul style="list-style-type: none"> • Demonstration • Dual training • Individual Self-paced Learning • Lecture 	<ul style="list-style-type: none"> • Written examination • Demonstration of practical skills • Direct observation • Interview
2. Load and unload goods/cargo.	2.1 Identify class and subsidiary risk labels for dangerous goods and take appropriate action 2.2 Follow ADG code where applicable 2.3 Safely load and unload goods following workplace procedures 2.4 Distribute and secure load for safe transport in accordance with regulations 2.5 Locate, interpret and apply relevant information 2.6 Provide customer/client service and work effectively with others 2.7 Pack and unpacked loads according to relevant requirements/regulations	<ul style="list-style-type: none"> • Audio Visual • Practical Lab • Lecture/ Discussion • Demonstration 	<ul style="list-style-type: none"> • Direct observation • Written test or examination • Questioning • Third party report (to include report on work attitude) • Demonstration/ Simulation

	<p>2.8 Secure and protect load using correct load restraint and protection equipment for different loads, carrying and storage conditions</p> <p>2.9 Protect load according to legal and workplace safety requirements</p>		
3. Assemble and repair damaged netting	<p>3.1. Prepare netting materials and tools for repair</p> <p>3.2. Name, identify and understand different netting terms</p> <p>3.3. Calculate joining ratios</p> <p>3.4. Interpret signage on gear plan</p> <p>3.5. Measure different types of netting</p> <p>3.6. Use a taper table to design netting panels of a required depth, width or taper</p> <p>3.7. Mend rips and holes</p> <p>3.8. Repair large scale damage</p> <p>3.9. Carry out routine maintenance and storage of materials, tools and equipment</p> <p>3.10. Carry out routine maintenance of workplace</p> <p>3.11. Recognize and report a problem</p>	<ul style="list-style-type: none"> • Demonstration • Dual training • Individual Self-paced learning • Lecture 	<ul style="list-style-type: none"> • Written test • Demonstration of practical skills • Direct observation • Interview

3.1 TRAINING DELIVERY

The delivery of training should adhere to the design of the curriculum. Delivery should be guided by the 10 basic principles of competency-based TVET.

- The training is based on curriculum developed from the competency standards;
- Learning is modular in its structure;
- Training delivery is individualized and self-paced;
- Training is based on work that must be performed;
- Training materials are directly related to the competency standards and the curriculum modules;
- Assessment is based in the collection of evidence of the performance of work to the industry required standard;
- Training is based both on and off-the-job components;
- Allows for recognition of prior learning (RPL) or current competencies;
- Training allows for multiple entry and exit; and
- Approved training programs are nationally accredited.

The competency-based TVET system recognizes various types of delivery modes, both on and off-the-job as long as the learning is driven by the competency standards specified by the industry. The following training modalities may be adopted when designing training programs:

- The dualized mode of training delivery is preferred and recommended. Thus programs would contain both in-school and in-industry training or fieldwork components. Details can be referred to the Dual Training System (DTS) Implementing Rules and Regulations.
- Modular/self-paced learning is a competency-based training modality wherein the trainee is allowed to progress at his own pace. The trainer facilitates the training delivery
- Peer teaching/mentoring is a training modality wherein fast learners are given the opportunity to assist the slow learners.
- Supervised industry training or on-the-job training is an approach in training designed to enhance the knowledge and skills of the trainee through actual experience in the workplace to acquire specific competencies prescribed in the training regulations.
- Distance learning is a formal education process in which majority of the instruction occurs when the students and instructor are not in the same place. Distance learning may employ correspondence study, or audio, video or computer technologies.
- Project-Based Instruction is an authentic instructional model or strategy in which students plan, implement and evaluate projects that have real world applications.

3.2 TRAINEE ENTRY REQUIREMENTS

Trainees or students wishing to enroll in this course should possess the following requirements.

- Able to read and write;
- With good moral character;
- Ability to communicate, both oral and written
- Physically fit and mentally healthy as certified by a Public Health Officer

3.4 LIST OF TOOLS, EQUIPMENT AND MATERIALS

FISH CAPTURE NCI (Ultimo)

Recommended list of tools, equipment and materials for the training of 25 trainees for Fish Capture NC I (Ultimo).

TOOLS		EQUIPMENT		MATERIALS	
QTY	Description	QTY	Description	QTY	Description
25	• netting needles: bone	1	• Fishing vessel	5	• wire rope
25	• netting needles: flat	2	• Flags	1	• powered winch
25	• knives	5	• Flares	5	• capstan
25	• scissors	5	• lights	5	• windlass
25	• marked rod	5	• Two-way radio	1	• cable and rope winches
25	• mesh gauge	2	• Electronic equipment	25	• three, four or eight-strand rope
25	• ruler	1	• net haulers	25	• strengthening ropes.
25	• stands	1	• pot or trap haulers	25	• gill netting: monofilament
25	• tensioning devices	1	• anchor winches	25	• gill netting: multi-monofilament
1	• hot and cold hoses			25	• trawl and purse seine netting: knotted
25	• brooms, mops and shovels			25	• trawl and purse seine netting: knotless
25	• cleaning cloths			25	• trawl and purse seine netting: braided twine
25	• bins and tubs			25	• trawl and purse seine netting: twisted twine

25	• brushes			25	• trawl and purse seine netting: polyethylene (PE)
25	• cleaning buckets			25	• trawl and purse seine netting: polyamide (nylon) (PA)
				25	• Thermal and waterproof clothing
				25	• Thermal and protective hand covering
				25	• Thermal and protective hair or beard cover
				25	• Thermal and protective waterproof footwear
				25	• eye protection.
				25	• cleaning and sanitizing chemicals and agents.
				25	• Food Safety Program
				25	• Material Safety Data Sheet
				25	• OHS Requirements
				25	• fish boxes

3.5 TRAINING FACILITIES

FISH CAPTURE NC I

Based on a class size of 25 students/trainees.

SPACE REQUIREMENT	SIZE IN METERS	AREA IN SQ. METERS	TOTAL AREA IN SQ. METERS
A. Building (permanent)			170.30
• Student/Trainee Working Space	2.00 x 2.00 per student/trainee	4.00 per student	100.00
• Learning Resource Center	3.00 x 5.00	15.00	15.00
• Facilities/Equipment/Circulation (30% of teaching accommodation)			39.30
• Store Room	4.00 x 4.00	16.00	16.00
B. Experimental Deck Area			90
Total Area			430.60

Note: Experimental area will change according to availability of land.

3.6 TRAINER'S QUALIFICATIONS FOR AGRI-FISHERY SECTOR

FISH CAPTURE NC I

TRAINER QUALIFICATION (TQ I)

- Must be a holder of Fish Capture NC II or its equivalent
- Must have undergone training on Training Methodology I (TM I)
- Must be computer literate
- Must be physically and mentally fit
- *Must have at least 2 years job/industry experience
- Must be a civil service eligible (for government position or appropriate professional license issued by the Professional Regulatory Commission)

* Optional. Only when required by the hiring institution.

Reference: TESDA Board Resolution No. 2004 03

3.7 INSTITUTIONAL ASSESSMENT

Institutional Assessment is to be undertaken by the learner who enrolled in a structured learning program to determine the achievement of competencies. It is administered by the trainer/assessor at end of each learning module.

SECTION 4 NATIONAL ASSESSMENT AND CERTIFICATION ARRANGEMENTS

- 4.1 To attain the National Qualification of **Fish Capture NC I**, the candidate must demonstrate competence through project type assessment covering all the units listed in Section 1. Successful candidates shall be awarded a National Certificate signed by the TESDA Director General.
- 4.2 The qualification of Fish Capture NC I may be attained through:
 - 4.2.1 Accumulation of Certificates of Competency (COCs) in the following areas:
 - 4.2.1.1 Apply deckhand skills aboard a fishing vessel
 - 4.2.1.2 Load and unload goods / cargo
 - 4.2.1.3 Assemble and repair damaged netting

Successful candidates shall be awarded Certificates of Competency (COCs)
- 4.3 Accumulation and submission of all COCs acquired for the relevant units of competency comprising a qualification, an individual shall be issued the corresponding National Certificate.
- 4.4 Assessment shall focus on the core units of competency. The basic and common units shall be integrated or assessed concurrently with the core units.
- 4.5 The following are qualified to apply for assessment and certification:
 - 4.4.1 Graduates of formal, non formal and informal including enterprise-based training programs.
 - 4.4.2 Experienced workers (wage employed or self-employed)
- 4.6 The guidelines on assessment and certification are discussed in detail in the Procedures manual on Assessment and Certification and Guidelines on the implementation of the Philippine TVET Qualification and Certification System (PTQCS).

COMPETENCY MAP FOR AGRI-FISHERY SECTOR

FISH CAPTURE SUB-SECTOR

CORE UNITS OF COMPETENCY				
Maintain the temperature of seafood	Maintain , prepare, deploy and retrieve purse seines to land catch	Assemble and repair damaged netting	Maintain, prepare, deploy and retrieve hand operated lines to land catch	Manage and control fishing operations
Implement the food safety program and procedures	Shift a load using manually operated equipment	Clean work area	Record information about the country	Construct nets and customize design
Load and unload goods and cargo goods	Adjust and position purse seines	Maintain the temperature of seafood	Contribute to at sea processing of seafood	Locate fishing grounds and stocks of fish
Assemble and repair damaged netting	Assemble and load refrigerated product	Adjust & position drop lines and long lines	Maintain, prepare, deploy and retrieve mesh nets or gill nets to land catch	Monitor the implementation of quality and food safety programs
Apply deckhand skills aboard a fishing vessel	Implement the food safety program and procedures	Maintain, prepare, deploy and retrieve drop lines and long lines to land catch	Perform routine housekeeping duties on board a vessel	Implement quality systems and procedures
Apply basic first aid	Maintain, prepare, deploy and retrieve pots and traps to land catch	Perform breath hold diving operations	Adjust and position purse seines	Keep records for a municipal fishing business
Adjust and position pots and traps	Work with temperature controlled stock	Adjust and position hand operated lines	Cook on board a vessel	Operate machinery in adverse conditions
Apply deckhand skills aboard a fishing vessel	Adjust and position beach seines, mesh nets or grill nets	Conduct field operations	Analyze and report on board observation	Operate refrigerated storerooms

Continuation Competency Map for Agri- Fishery Sector (Fish Capture Sub-Sector)

CORE UNITS OF COMPETENCY				
Collect reliable scientific data and samples	Perform diving operations using self contained underwater breathing apparatus	Transport, handle and store chemicals	Establish and manage effective external relationships	Wholesale product
Implement OHS policies and guidelines	Perform breath hold diving operations	Scuba dive in open water to a maximum dept of 18 meters	Manage and control fishing operations	Conduct food safety audits
Maintain the temperature of seafood	Perform compressions chamber diving operations	Undertake emergency procedures in diving operations using surface supplied breathing apparatus	Oversee the implementation of a food safety program in the workplace	Follow basic food safety practices
Oversee and undertake effluent and waste treatment and disposal	Perform diving operations using surface supplied breathing apparatus	Work effectively as a diver in the seafood industry	Evaluate a batch of seafood	Develop food safety programs
Collect routine fishery management data	Apply and prepare chemicals	Establish and maintain the enterprise OHS programs	Monitor the implementation of quality and food safety programs	Locate fishing ground and stocks of fish
Implement environmental policies and procedures	Provide support for diving operations	Manage environmental performance	Prepare work instructions for new tasks	Provide practical and / or commercial advice to seafood users
Monitor and record fishing operations	Work with temperature controlled stock	Supervise maintenance of machinery and equipment	Export product	
Participate in a HACCP Team	Undertake emergency procedures in diving operations using self contained underwater breathing apparatus	Apply and monitor food safety requirements	Operate a small vessel	

Continuation Competency Map for Agri Fishery Sector (Fish Capture Sub-Sector)

COMMON UNITS OF COMPETENCY

Apply safety measures	Use farm tools and equipment	Perform estimation and calculation	Apply Food Safety and Sanitation	
Comply with emergency procedures	Prevent and fight fire	Protect marine environment	Perform first aid treatment on board	Perform survival techniques during ship abandonment
Launch survival craft and techniques	Conduct shipboard security checks			

BASIC UNITS OF COMPETENCY

Receive and Respond to Workplace Communication	Participate in Workplace Communication	Lead Workplace Communication	Utilize specialist communication	Develop Team and Individual
Work With Others	Work in a Team Environment	Lead Small Team	Solve Workplace Problems Related to Work Activities	Apply Problem Solving Techniques in the Workplace
Demonstrate work values	Practice housekeeping procedures			Plan and Organize Work

Fish Capture NC I

DEFINITION OF TERMS

For the purpose of this standard, the word

- **Accident** – unwanted incidents involving injury or damage to life, the environment, the ship or cargo
- **Anchor**– a heavy forging or casting comprising a shank with shackles or ring at one end and two arms with palms at the other, so shaped as to grip the sea bottom, by means of cable or rope hold a boat / ship regardless of wind and current
- **Ballast** – a quantity of iron, stone, gravel or other weighty substance like (water, oil, etc) placed in the lower hold of the boat/ship to increase stability by lowering the center of gravity.
- **Bend** – a knot by which one rope is fastened to another to some object.
- **Bilge** – a place in the lower part of the boat / ship where waste water collects and which bilge suctions are placed for pumping out
- **Boat** – a small open craft propelled by oars sails, or some form of engine. This term also applied to a larger boats built to navigate rivers and inland waters.
- **Capstan** – a machine for moving or raising heavy weights and consist of a vertical drum that can be rotated and around which cable is turned
- **Deck** – a platform in a ship that is structural element and forming the floor for its compartment
- **Deckhand**– a seaman who perform manual and other duties on board a vessel
- **Fish capture** – the taking of fishery species by passive or active gear for trade, business or profit beyond subsistence or sport fishing and classified further as follows:
 - **Small scale commercial fishing** – fishing utilizing fishing vessels of 3.1 gross tons (GT) up to 20 GT
 - **Medium scale commercial fishing** – fishing utilizing fishing vessels of 20.1 GT up to 150 GT; and
 - **Large scale commercial fishing** – fishing utilizing fishing vessel of more than 150 GT
- **Fishing gear** – fishing equipment and paraphernalia

- **Fish fighting equipment** – equipment use to extinguish fire as per type.
- **Hitch**– any of various knots used to form a temporary noose in a line or to secure a line temporarily to an object
- **Knot** – the interlacement of the parts of one or more flexible bodies forming a lump or knob
- **Life saving appliances** – are outfits designed for life preservation
- **Mooring** – a act of making fast a boat with lines or anchor
- **Netting** – fishing gear component made of open meshed fabric
- **Seaworthiness** – refers to the ability of a boat / ship to withstand the action of the sea, wind and weather
- **Winch** – any of various machines or instruments for pulling or hauling, with one or more drums on which to coil a rope, cable or chain.
- **Windlass** - a steam or electric winch with horizontal or vertical shaft and two drums used to raise a ship's anchor.

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- **THE TECHNICAL ADVISORY PANEL (TAP)**

Dr. RODOLFO P. ESTIGOY

Chief
Bureau of Post Harvest Research and Extension
Central Luzon State University, Science City of Muñoz, Nueva Ecija

Mr. ALEJANDRO T. ESCANO

President
Philippine Chamber of Agriculture and Food (PCAFI)
MFI Bldg. Otigas Avenue Extension, Pasig City

Mr. EDWIN ANDOT

President
Chamber of Agriculture, Fisheries and Food in Northern Mindanao
2nd floor, United Way Bldg.
Capitol Cmpd., Cagayan de Oro City

Dr. ALMA M. DELA CRUZ

Professor
Central Luzon State University
Muñoz, Nueva Ecija

- **THE TECHNICAL EXPERT PANEL (TEP)**

Ms. FELY LIM

SOCKSARGEN Federation of Fishing and Allied Industries, Inc. (SFFAI) / SECAFF

Mr. JAIME S. NAVARRO, JR.

RD Tuna Ventures, Inc.

MR. ROGELIO NODORA

Port Captain
Damalerio Group of Companies
Talisay, Tambler, Gen. Santos City

Mr. ROGELIO C. GENSAVA

Liason Officer
Amadeo Fishing Corp.
Marang St., Calumpang, Gen. Santos

Engr. ROMAN CASTRO

Maritime Industry Authority
MARINA – Region XII

Mr. EDWIN G. FORONES

San Andres Fishing Industry

Mr. ELIAS RODRIGO SR.

Port Captain
RD Fishing Industry, Inc.

Mr. ABEL ALINO

Material Coordinor
RD Fishing Industry, Inc.

The Participants in the national validation of this Training Regulation

**National Capital Region
Region VIII
Region XII**

The Management and Staff of the TESDA Secretariat

- **SSCO**
- **NITVET**