

# TRAINING REGULATIONS



## FISH CAPTURE NC II

**AGRICULTURE AND FISHERY SECTOR**

**TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY**  
East Service Road, South Superhighway, Taguig City, Metro Manila

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## TRAINING REGULATIONS FOR FISH CAPTURE NC II

### Section 1 FISH CAPTURE NC II QUALIFICATION

The **Fish Capture NC II** Qualification consists of competencies that a person must achieve to enable him to catch and deliver seafood products. Workers at this level would be directly engaged in fishing and other related fishing activities in inland bodies of waters and marine waters within 15 kilometers from the coastline (and other provisions for municipal waters) using fishing vessels of three (3) gross tons or less.

This Qualification is consistent with pertinent Maritime Industry Authority (MARINA) and Local Government Unit (LGU) requirements for the issuance of Motorboat Operators License (MBOL), permit to fish in municipal waters, and other licenses where required, such as fisherman's license, fishing boat license and fishing gear license.

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

These units of competency comprising this qualification include the following:

<b>Code</b>	<b>BASIC COMPETENCIES</b>
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500311105	Participate in workplace communication
500311106	Work in team environment
500311107	Practice career professionalism
500311108	Practice occupational health and safety procedures

<b>Code</b>	<b>COMMON COMPETENCIES</b>
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AGR321201	Apply safety measures in farm operations
AGR321202	Use farm tools and equipment
AGR321203	Perform estimation and calculations
MTM834202	Prevent and fight fire
MTM834205	Protect marine environment
MTM834206	Comply with emergency procedures

<b>Code</b>	<b>CORE COMPETENCIES</b>
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AGR642304	Operate a vessel of up to 3.0 GT
AGR642305	Monitor condition and seaworthiness of a vessel
AGR642306	Perform routine maintenance tasks on a small coastal vessel
AGR642307	Operate and troubleshoot low powered marine engines
AGR642308	Apply weather information when navigating a vessel
AGR642309	Contribute to safe navigation
AGR642310	Apply basic food handling and safety practices

<b>Code</b>	<b>CORE COMPETENCIES</b>
<b>Combination 1</b>	<b>Beach, seining, mesh or gill netting</b>
AGR642311	Adjust and position beach seines, mesh nets or gill nets
AGR642312	Maintain, prepare, deploy and retrieve beach seines, mesh nets or gill nets to land catch
<b>Combination 2</b>	<b>Hand-line Fishing</b>
AGR642313	Adjust and position hand operated lines
AGR642314	Maintain, prepare, deploy and retrieve hand operated lines to land catch
<b>Combination 3</b>	<b>Pots and Traps</b>
AGR642315	Adjust and position pots and traps
AGR642316	Maintain, prepare, deploy and retrieve pots and traps to land catch
<b>Code</b>	<b>ELECTIVE COMPETENCIES</b>
AGR642302	Load and unload goods / cargo
AGR642303	Assemble and repair damaged netting
AGR642317	Implement the food safety program and procedures
AGR642318	Keep record for a municipal fishing business
AGR642319	Apply basic first aid
AGR642320	Operate and maintain marine outboard motors
AGR642321	Transmit and receive information by marine radio or telephone
AGR642322	Perform breath hold diving operations
AGR642323	Assemble and load refrigerated product
AGR642324	Shift a load using manually-operated equipment
AGR642325	Maintain the temperature of seafood
AGR642326	Work with temperature controlled stock
AGR642327	Conduct field observations
AGR642328	Monitor and record fishing operations

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

- **Municipal Fisherman**

## 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 II**. These units of competency are categorized into basic, common and core competencies.

### BASIC COMPETENCIES

**UNIT OF COMPETENCY : PARTICIPATE IN WORKPLACE COMMUNICATION**

**UNIT CODE : 500311105**

**UNIT DESCRIPTOR :** This unit covers the knowledge, skills and attitudes required to gather, interpret and convey information in response to workplace requirements.

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized</i> terms are elaborated in the Range of Variables
1. Obtain and convey workplace information	<ul style="list-style-type: none"><li>1.1. Specific and relevant information is accessed from <b>appropriate sources</b></li><li>1.2. Effective questioning , active listening and speaking skills are used to gather and convey information</li><li>1.3. Appropriate <b>medium</b> is used to transfer information and ideas</li><li>1.4. Appropriate non- verbal communication is used</li><li>1.5. Appropriate lines of communication with supervisors and colleagues are identified and followed</li><li>1.6. Defined workplace procedures for the location and <b>storage</b> of information are used</li><li>1.7. Personal interaction is carried out clearly and concisely</li></ul>
2. Participate in workplace meetings and discussions	<ul style="list-style-type: none"><li>2.1. Team meetings are attended on time</li><li>2.2. Own opinions are clearly expressed and those of others are listened to without interruption</li><li>2.3. Meeting inputs are consistent with the meeting purpose and established <b>protocols</b></li><li>2.4. <b>Workplace interactions</b> are conducted in a courteous manner</li><li>2.5. Questions about simple routine workplace procedures and matters concerning working conditions of employment are asked and responded</li><li>2.6. Meetings outcomes are interpreted and implemented</li></ul>

<p>3. Complete relevant work related documents</p>	<p>3.1. Range of <b>forms</b> relating to conditions of employment are completed accurately and legibly</p> <p>3.2. Workplace data is recorded on standard workplace forms and documents</p> <p>3.3. Basic mathematical processes are used for routine calculations</p> <p>3.4. Errors in recording information on forms/ documents are identified and properly acted upon</p> <p>3.5. Reporting requirements to supervisor are completed according to organizational guidelines</p>
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## RANGE OF VARIABLES

VARIABLE	RANGE
1. Appropriate sources	1.1. Team members 1.2. Suppliers 1.3. Trade personnel 1.4. Local government 1.5. Industry bodies
2. Medium	2.1. Memorandum 2.2. Circular 2.3. Notice 2.4. Information discussion 2.5. Follow-up or verbal instructions 2.6. Face to face communication
3. Storage	3.1. Manual filing system 3.2. Computer-based filing system
4. Forms	4.1. Personnel forms, telephone message forms, safety reports
5. Workplace interactions	5.1. Face to face 5.2. Telephone 5.3. Electronic and two way radio 5.4. Written including electronic, memos, instruction and forms, non-verbal including gestures, signals, signs and diagrams
6. Protocols	6.1. Observing meeting 6.2. Compliance with meeting decisions 6.3. Obeying meeting instructions

## EVIDENCE GUIDE

1. Critical Aspects of Competency	<p>Assessment requires evidence that the candidate:</p> <ol style="list-style-type: none"> <li>1.1. Prepared written communication following standard format of the organization</li> <li>1.2. Accessed information using communication equipment</li> <li>1.3. Made use of relevant terms as an aid to transfer information effectively</li> <li>1.4. Conveyed information effectively adopting the formal or informal communication</li> </ol>
2. Underpinning Knowledge and Attitudes	<ol style="list-style-type: none"> <li>2.1. Effective communication</li> <li>2.2. Different modes of communication</li> <li>2.3. Written communication</li> <li>2.4. Organizational policies</li> <li>2.5. Communication procedures and systems</li> <li>2.6. Technology relevant to the enterprise and the individual's work responsibilities</li> </ol>
3. Underpinning Skills	<ol style="list-style-type: none"> <li>3.1. Follow simple spoken language</li> <li>3.2. Perform routine workplace duties following simple written notices</li> <li>3.3. Participate in workplace meetings and discussions</li> <li>3.4. Complete work related documents</li> <li>3.5. Estimate, calculate and record routine workplace measures</li> <li>3.6. Basic mathematical processes of addition, subtraction, division and multiplication</li> <li>3.7. Ability to relate to people of social range in the workplace</li> <li>3.8. Gather and provide information in response to workplace Requirements</li> </ol>
4. Resource Implications	<ol style="list-style-type: none"> <li>4.1. Fax machine</li> <li>4.2. Telephone</li> <li>4.3. Writing materials</li> <li>4.4. Internet</li> </ol>
5. Methods of Assessment	<ol style="list-style-type: none"> <li>5.1. Direct Observation</li> <li>5.2. Oral interview and written test</li> </ol>
6. Context of Assessment	<ol style="list-style-type: none"> <li>6.1. Competency may be assessed individually in the actual workplace or through accredited institution</li> </ol>

**UNIT OF COMPETENCY: WORK IN TEAM ENVIRONMENT**

**UNIT CODE : 500311106**

**UNIT DESCRIPTOR :** This unit covers the skills, knowledge and attitudes to identify role and responsibility as a member of a team.

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized</i> terms are elaborated in the Range of Variables
1. Describe team role and scope	1.1. The <b><i>role and objective of the team</i></b> is identified from available <b><i>sources of information</i></b>  1.2. Team parameters, reporting relationships and responsibilities are identified from team discussions and appropriate external sources
2. Identify own role and responsibility within team	2.1. Individual role and responsibilities within the team environment are identified  2.2. Roles and responsibility of other team members are identified and recognized  2.3. Reporting relationships within team and external to team are identified
3. Work as a team member	3.1. Effective and appropriate forms of communications used and interactions undertaken with team members who contribute to known team activities and objectives  3.2. Effective and appropriate contributions made to complement team activities and objectives, based on individual skills and competencies and <b><i>workplace context</i></b>  3.3. Observed protocols in reporting using standard operating procedures  3.4. Contribute to the development of team work plans based on an understanding of team's role and objectives and individual competencies of the members.

## RANGE OF VARIABLES

VARIABLE	RANGE
1. Role and objective of team	1.1. Work activities in a team environment with enterprise or specific sector  1.2. Limited discretion, initiative and judgement maybe demonstrated on the job, either individually or in a team environment
2. Sources of information	2.1. Standard operating and/or other workplace procedures  2.2. Job procedures  2.3. Machine/equipment manufacturer's specifications and instructions  2.4. Organizational or external personnel  2.5. Client/supplier instructions  2.6. Quality standards  2.7. OHS and environmental standards
3. Workplace context	3.1. Work procedures and practices  3.2. Conditions of work environments  3.3. Legislation and industrial agreements  3.4. Standard work practice including the storage, safe handling and disposal of chemicals  3.5. Safety, environmental, housekeeping and quality guidelines

## EVIDENCE GUIDE

1. Critical aspects of competency	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> <li>1.1. Operated in a team to complete workplace activity</li> <li>1.2. Worked effectively with others</li> <li>1.3. Conveyed information in written or oral form</li> <li>1.4. Selected and used appropriate workplace language</li> <li>1.5. Followed designated work plan for the job</li> <li>1.6. Reported outcomes</li> </ul>
2. Underpinning Knowledge and Attitude	<ul style="list-style-type: none"> <li>2.1. Communication process</li> <li>2.2. Team structure</li> <li>2.3. Team roles</li> <li>2.4. Group planning and decision making</li> </ul>
3. Underpinning Skills	<ul style="list-style-type: none"> <li>3.1. Communicate appropriately, consistent with the culture of the workplace</li> </ul>
4. Resource Implications	<p>The following resources <b>MUST</b> be provided:</p> <ul style="list-style-type: none"> <li>4.1. Access to relevant workplace or appropriately simulated environment where assessment can take place</li> <li>4.2. Materials relevant to the proposed activity or tasks</li> </ul>
5. Methods of Assessment	<p>Competency may be assessed through:</p> <ul style="list-style-type: none"> <li>5.1. Observation of the individual member in relation to the work activities of the group</li> <li>5.2. Observation of simulation and or role play involving the participation of individual member to the attainment of organizational goal</li> <li>5.3. Case studies and scenarios as a basis for discussion of issues and strategies in teamwork</li> </ul>
6. Context for Assessment	<ul style="list-style-type: none"> <li>6.1. Competency may be assessed in workplace or in a simulated workplace setting</li> <li>6.2. Assessment shall be observed while task are being undertaken whether individually or in group</li> </ul>

**UNIT OF COMPETENCY: PRACTICE CAREER PROFESSIONALISM**

**UNIT CODE : 500311107**

**UNIT DESCRIPTOR :** This unit covers the knowledge, skills and attitudes in promoting career growth and advancement.

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized</i> terms are elaborated in the Range of Variables
1. Integrate personal objectives with organizational goals	1.1 Personal growth and work plans are pursued towards improving the qualifications set for the profession 1.2 Intra- and interpersonal relationships <del>is</del> are maintained in the course of managing oneself based on performance <b>evaluation</b> 1.3 Commitment to the organization and its goal is demonstrated in the performance of duties
2. Set and meet work priorities	2.1 Competing demands are prioritized to achieve personal, team and organizational goals and objectives. 2.2 <b>Resources</b> are utilized efficiently and effectively to manage work priorities and commitments 2.3 Practices along economic use and maintenance of equipment and facilities are followed as per established procedures
3. Maintain professional growth and development	3.1 <b>Trainings and career opportunities</b> are identified and availed of based on job requirements 3.2 <b>Recognitions</b> are -sought/received and demonstrated as proof of career advancement 3.3 <b>Licenses and/or certifications</b> relevant to job and career are obtained and renewed-

## RANGE OF VARIABLES

<b>VARIABLE</b>	<b>RANGE</b>
1. Evaluation	1.1 Performance Appraisal 1.2 Psychological Profile 1.3. Aptitude Tests
2. Resources	2.1 Human 2.2 Financial 2.3 Technology 2.3.1 Hardware 2.3.2. Software
3. Trainings and career opportunities	3.1 Participation in training programs 3.1.1 Technical 3.1.2 Supervisory 3.1.3 Managerial 3.1.4 Continuing Education 3.2 Serving as Resource Persons in conferences and workshops
4. Recognitions	4.1 Recommendations 4.2 Citations 4.3 Certificate of Appreciations 4.4 Commendations 4.5 Awards 4.6. Tangible and Intangible Rewards
5. Licenses and/or certifications	5.1 National Certificates 5.2 Certificate of Competency 5.3. Support Level Licenses 5.4 Professional Licenses

## EVIDENCE GUIDE

1. Critical Aspects of Competency	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> <li>1.1. Attained job targets within key result areas (KRAs)</li> <li>1.2. Maintained intra - and interpersonal relationship in the course of managing oneself based on performance evaluation</li> <li>1.3. Completed training and career opportunities which are based on the requirements of the industries</li> <li>1.4. Acquired and maintained licenses and/or certifications according to the requirement of the qualification</li> </ul>
2. Underpinning Knowledge	<ul style="list-style-type: none"> <li>2.1 Work values and ethics (Code of Conduct, Code of Ethics, etc.)</li> <li>2.2 Company policies</li> <li>2.3 Company-operations, procedures and standards</li> <li>2.4 Fundamental rights at work including gender sensitivity</li> <li>2.5 Personal hygiene practices</li> </ul>
3. Underpinning Skills	<ul style="list-style-type: none"> <li>3.1 Appropriate practice of personal hygiene</li> <li>3.2 Intra and Interpersonal skills</li> <li>3.3 Communication skills</li> </ul>
4. Resource Implications	<p>The following resources <b>MUST</b> be provided:</p> <ul style="list-style-type: none"> <li>4.1. Workplace or assessment location</li> <li>4.2 Case studies/scenarios</li> </ul>
5. Methods of Assessment	<p>Competency may be assessed through:</p> <ul style="list-style-type: none"> <li>5.1. Portfolio Assessment</li> <li>5.2. Interview</li> <li>5.3. Simulation/Role-plays</li> <li>5.4. Observation</li> <li>5.5. Third Party Reports</li> <li>5.6. Exams and Tests</li> </ul>
6. Context of Assessment	<ul style="list-style-type: none"> <li>6.1. Competency may be assessed in the work place or in a simulated work place setting</li> </ul>

**UNIT OF COMPETENCY :**     **PRACTICE OCCUPATIONAL HEALTH AND SAFETY PROCEDURES**

**UNIT CODE**                     **:**     **500311108**

**UNIT DESCRIPTOR**         **:**     This unit covers the outcomes required to comply with regulatory and organizational requirements for occupational health and safety.

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized</i> terms are elaborated in the Range of Variables
1. Identify hazards and risks	<p>1.1. <b><i>Safety regulations</i></b> and workplace safety and hazard control practices and procedures are clarified and explained based on organization procedures</p> <p>1.2. <b><i>Hazards/risks</i></b> in the workplace and their corresponding indicators are identified to minimize or eliminate risk to co-workers, workplace and environment in accordance with organization procedures</p> <p>1.3. <b><i>Contingency measures</i></b> during workplace accidents, fire and other emergencies are recognized and established in accordance with organization procedures</p>
2. Evaluate hazards and risks	<p>2.1. Terms of maximum tolerable limits which when exceeded will result in harm or damage are identified based on threshold limit values (TLV)</p> <p>2.2. Effects of the hazards are determined</p> <p>2.3. OHS issues and/or concerns and identified safety hazards are reported to designated personnel in accordance with workplace requirements and relevant workplace OHS legislation</p>

<p>3. Control hazards and risks</p>	<p>3.1. Occupational Health and Safety (OHS) procedures for controlling hazards/risks in workplace are consistently followed</p> <p>3.2. Procedures for dealing with workplace accidents, fire and emergencies are followed in accordance with organization OHS policies</p> <p>3.3. <b>Personal protective equipment (PPE)</b> is correctly used in accordance with organization OHS procedures and practices</p> <p>3.4. Appropriate assistance is provided in the event of a workplace emergency in accordance with established organization protocol</p>
<p>4. Maintain OHS awareness</p>	<p>4.1. <b>Emergency-related drills and trainings</b> are participated in as per established organization guidelines and procedures</p> <p>4.2. <b>OHS personal records</b> are completed and updated in accordance with workplace requirements</p>

## RANGE OF VARIABLES

VARIABLE	RANGE
1. Safety regulations	May include but are not limited to: 1.1. Clean Air Act 1.2. Building code 1.3. National Electrical and Fire Safety Codes 1.4. Waste management statutes and rules 1.5. Philippine Occupational Safety and Health Standards 1.6. DOLE regulations on safety legal requirements 1.7. ECC regulations
2. Hazards/Risks	May include but are not limited to: 2.1 Physical hazards – impact, illumination, pressure, noise, vibration, temperature, radiation 2.2 Biological hazards- bacteria, viruses, plants, parasites, mites, molds, fungi, insects 2.3 Chemical hazards – dusts, fibers, mists, fumes, smoke, gasses, vapors 2.4 Ergonomics 2.4.1. Psychological factors – over exertion/ excessive force, awkward/static positions, fatigue, direct pressure, varying metabolic cycles 2.4.2. Physiological factors – monotony, personal relationship, work out cycle
3. Contingency measures	May include but are not limited to: 3.1. Evacuation 3.2. Isolation 3.3. Decontamination 3.4. (Calling designed) emergency personnel
4. PPE	May include but are not limited to: 4.1 Mask 4.2 Gloves 4.3 Goggles 4.4 Hair Net/cap/bonnet 4.5 Face mask/shield 4.6 Ear muffs 4.7 Apron/Gown/coverall/jump suit 4.8 Anti-static suits

<p>5. Emergency-related drills and training</p>	<p>5.1 Fire drill  5.2 Earthquake drill  5.3 Basic life support/CPR  5.4 First aid  5.5 Spillage control  5.6 Decontamination of chemical and toxic  5.7 Disaster preparedness/management</p>
<p>6. OHS personal records</p>	<p>6.1. Medical/Health records  6.2. Incident reports  6.3. Accident reports  6.4. OHS-related training completed</p>

## EVIDENCE GUIDE

1. Critical Aspects of Competency	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> <li>1.1. Explained clearly established workplace safety and hazard control practices and procedures</li> <li>1.2. Identified hazards/risks in the workplace and its corresponding indicators in accordance with company procedures</li> <li>1.3. Recognized contingency measures during workplace accidents, fire and other emergencies</li> <li>1.4. Identified terms of maximum tolerable limits based on threshold limit value- TLV.</li> <li>1.5. Followed Occupational Health and Safety (OHS) procedures for controlling hazards/risks in workplace</li> <li>1.6. Used Personal Protective Equipment (PPE) in accordance with company OHS procedures and practices</li> <li>1.7. Completed and updated OHS personal records in accordance with workplace requirements</li> </ul>
2. Underpinning Knowledge and Attitude	<ul style="list-style-type: none"> <li>2.1. OHS procedures and practices and regulations</li> <li>2.2. PPE types and uses</li> <li>2.3. Personal hygiene practices</li> <li>2.4. Hazards/risks identification and control</li> <li>2.5. Threshold Limit Value -TLV</li> <li>2.6. OHS indicators</li> <li>2.7. Organization safety and health protocol</li> <li>2.8. Safety consciousness</li> <li>2.9. Health consciousness</li> </ul>
3. Underpinning Skills	<ul style="list-style-type: none"> <li>3.1. Practice of personal hygiene</li> <li>3.2. Hazards/risks identification and control skills</li> <li>3.3. Interpersonal skills</li> <li>3.4. Communication skills</li> </ul>
4. Resource Implications	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> <li>4.1. Workplace or assessment location</li> <li>4.2. OHS personal records</li> <li>4.3 PPE</li> <li>4.4 Health records</li> </ul>
5. Methods of Assessment	<p>Competency may be assessed through:</p> <ul style="list-style-type: none"> <li>5.1. Portfolio Assessment</li> <li>5.2. Interview</li> <li>5.3 Case Study/Situation</li> </ul>
6. Context for Assessment	<ul style="list-style-type: none"> <li>6.1. Competency may be assessed in the work place or in a simulated work place setting</li> </ul>

## COMMON COMPETENCIES

### UNIT OF COMPETENCY : 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
1. Determine areas of concern for safety measures	<ul style="list-style-type: none"><li>1.1 <b>Work tasks</b> are identified in line with farm operations</li><li>1.2 <b>Place</b> for safety measures are determined in line with farm operations</li><li>1.3 <b>Time</b> for safety measures are determined in line with farm operations</li><li>1.4 Appropriate <b>tools, materials and outfits</b> are prepared in line with job requirements</li></ul>
2. Apply appropriate safety measures	<ul style="list-style-type: none"><li>2.1 Tools and materials are used according to specifications and procedures</li><li>2.2 Outfits are worn according to farm requirements</li><li>2.3 Effectivity/shelf life/expiration of materials are strictly observed</li><li>2.4 <b>Emergency procedures</b> are known and followed to ensure a safework requirement</li><li>2.5 Hazards in the workplace are identified and reported in line with farm guidelines</li></ul>
3. Safekeep/dispose tools, materials and outfit	<ul style="list-style-type: none"><li>3.1 Used tools and outfit are cleaned after use and stored in designated areas</li><li>3.2 Unused materials are properly labeled and stored according to manufacturers recommendation and farm requirements</li><li>3.3 <b>Waste materials</b> are disposed according to manufacturers, government and farm requirements</li></ul>

## RANGE OF VARIABLES

VARIABLE	RANGE
1. Work tasks	Work task may be selected from any of the following sectors: 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	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	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	4.1 Tools 4.1.1 Wrenches 4.1.2 Screw driver 4.1.3 Pliers 4.2 Materials 4.2.1 Bottles 4.2.2 Plastic 4.2.3 Bags 4.2.4 Syringe 4.3 Outfit 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	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"> <li>1.1 Determined areas of concern for safety measures</li> <li>1.2 Applied appropriate safety measures according to industry requirements</li> <li>1.3 Prepared tools, materials and outfit needed</li> <li>1.4 Performed proper disposal of used materials</li> <li>1.5 Safekeep/cleaned tools, materials and outfit in designated facilities</li> </ul>
2. Underpinning Knowledge and Attitudes	<ul style="list-style-type: none"> <li>2.1 Safety Practices <ul style="list-style-type: none"> <li>2.1.1 Implementation of regulatory controls and policies relative to treatment of area and application of chemicals</li> <li>2.1.2 Proper disposal of waste materials</li> </ul> </li> <li>2.2 Codes and Regulations <ul style="list-style-type: none"> <li>2.2.1 Compliance to health program of DOH and DENR</li> <li>2.2.2 Hazard identification</li> <li>2.2.3 Emergency procedures</li> </ul> </li> <li>2.3 Tools &amp; Equipment: Uses and Specification <ul style="list-style-type: none"> <li>2.3.1 Masks, gloves, boots, overall coats for health protection</li> </ul> </li> <li>2.4 Maintenance <ul style="list-style-type: none"> <li>2.4.1 Regular check-up and repair of tools, materials and outfit before and after use</li> </ul> </li> </ul>
3. Underpinning Skills	<ul style="list-style-type: none"> <li>3.1 Ability to recognize effective tools, materials and outfit</li> <li>3.2 Ready skills required to read labels, manuals and other basic safety information</li> </ul>
4. Method of Assessment	<p>Competency in this unit must be assessed through:</p> <ul style="list-style-type: none"> <li>4.1 Practical demonstration</li> <li>4.2 Third Party Report</li> </ul>
5. Resource Implications	<ul style="list-style-type: none"> <li>5.1 Farm location</li> <li>5.2 Tools, equipment and outfits appropriate in applying safety measures</li> </ul>
6. Context of Assessment	<ul style="list-style-type: none"> <li>6.1 Assessment may occur in the workplace or in a simulated workplace or as part of a team under limited supervision</li> </ul>

## UNIT OF COMPETENCY : 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
1. Select and use farm tools	<ul style="list-style-type: none"><li>1.1 Identified appropriate farm tools according to requirement/use</li><li>1.2 Farm tools are checked for faults and defective tools reported in accordance with farm procedures</li><li>1.3 Appropriate tools and equipment are safely used according to job requirements and manufacturers conditions</li></ul>
2. Select and operate farm equipment	<ul style="list-style-type: none"><li>2.1 Identify appropriate <b>farm equipment</b></li><li>2.2 Instructional manual of the farm tools and equipment are carefully read prior to operation</li><li>2.3 <b>Pre-operation check-up</b> is conducted in line with manufacturers manual</li><li>2.4 Faults in farm equipment are identified and reported in line with farm procedures</li><li>2.5 Farm equipment used according to its function</li><li>2.6 Followed safety procedures</li></ul>
3. Perform preventive maintenance	<ul style="list-style-type: none"><li>3.1 Tools and equipment are cleaned immediately after use in line with farm procedures</li><li>3.2 Routine check-up and maintenance are performed</li><li>3.3 Tools and equipment are stored in designated areas in line with farm procedures</li></ul>

## 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> <ul style="list-style-type: none"> <li>1.1 Correctly identified appropriate farm tools and equipment</li> <li>1.2 Operated farm equipments according to manual specification</li> <li>1.3 Performed preventive maintenance</li> </ul>
2. Underpinning Knowledge and Attitudes	<ul style="list-style-type: none"> <li>2.1 Safety Practices <ul style="list-style-type: none"> <li>2.1.1 Ideal good work habits to demonstrate to workers easy and safety standards during operation of farm equipment</li> </ul> </li> <li>2.2 Codes and Regulations <ul style="list-style-type: none"> <li>2.2.1 Environmental Compliance Certificate (ECG)</li> <li>2.2.2 Effective work supervision in the operations of farm equipment</li> </ul> </li> <li>2.3 Tools &amp; Equipment: Uses and Specification <ul style="list-style-type: none"> <li>2.3.1 Knowledge in calibrating and use of equipment</li> <li>2.3.2 Safety keeping of equipments every after use</li> </ul> </li> <li>2.4 Maintenance <ul style="list-style-type: none"> <li>2.4.1 Regular upkeep of equipments</li> <li>2.4.2 Preventive maintenance skills</li> </ul> </li> <li>2.5 Values <ul style="list-style-type: none"> <li>2.5.1 Positive outlook towards work</li> <li>2.5.2 Possesses pre-emptive/anticipatory skills</li> </ul> </li> </ul>
3. Underpinning Skills	<ul style="list-style-type: none"> <li>3.1 Ability to recognized defective farm equipment</li> <li>3.2 Perform proper management practices of safety measures</li> </ul>
4. Method of Assessment	<p>Competency in this unit must be assessed through:</p> <ul style="list-style-type: none"> <li>4.1 Direct observation</li> <li>4.2 Practical demonstration</li> <li>4.3 Third Party Report</li> </ul>
5. Resource Implications	<ul style="list-style-type: none"> <li>5.1 Service/operational manual of farm tools and equipment</li> <li>5.2 Tools and equipment</li> <li>5.3 Farm implements</li> </ul>
6. Context of Assessment	<ul style="list-style-type: none"> <li>6.1 Assessment may occur in the workplace or in a simulated workplace or as part of a team under limited supervision</li> </ul>

## UNIT OF COMPETENCY : 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
1. Perform estimation	<ul style="list-style-type: none"><li>1.1 Job requirements are identified from written or oral communications</li><li>1.2 Quantities of materials and resources required to complete a work task are estimated</li><li>1.3 The time needed to complete a work activity is estimated</li><li>1.4 Accurate estimate for work completion are made</li><li>1.5 Estimate of materials and resources are reported to appropriate person</li></ul>
2. Perform basic workplace calculation	<ul style="list-style-type: none"><li>2.1 <b>Calculations</b> to be made are identified according to job requirements</li><li>2.2 Correct <b>method of calculation</b> identified</li><li>2.3 <b>System and units of measurement</b> to be followed are ascertained</li><li>2.4 Calculation needed to complete work tasks are performed using the four basic process of addition, division, multiplication and subtraction</li><li>2.5 Calculate whole fraction, percentage and mixed when are used to complete the instructions</li><li>2.6 Number computed in self checked and completed for alignment</li></ul>

## 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> <ul style="list-style-type: none"> <li>1.1 Performed estimation</li> <li>1.2 Performed basic workplace calculation</li> <li>1.3 Applied corrective measures as maybe necessary</li> </ul>
2. Underpinning Knowledge and Attitudes	<ul style="list-style-type: none"> <li>2.1 Mathematics <ul style="list-style-type: none"> <li>2.1.1 Basic mathematical operations</li> <li>2.1.2 Percentage and ratios</li> <li>2.1.3 Unit Conversion</li> <li>2.1.4 Basic accounting principles and procedures <ul style="list-style-type: none"> <li>2.1.4.1 Production cost</li> <li>2.1.4.2 Sales</li> <li>2.1.4.3 Accounts receivables/payables</li> </ul> </li> </ul> </li> <li>2.2 Systems, Processes and Operations <ul style="list-style-type: none"> <li>2.2.1 Knowledge in different management practices and operational procedures</li> </ul> </li> <li>2.3 Values <ul style="list-style-type: none"> <li>2.3.1 Safety consciousness</li> <li>2.3.2 Time consciousness and management</li> <li>2.3.3 Cost consciousness</li> <li>2.3.4 Precision</li> </ul> </li> </ul>
3. Underpinning Skills	<ul style="list-style-type: none"> <li>3.1 Ability to perform basic calculation</li> <li>3.2 Communicate effectively</li> </ul>
4. Method of Assessment	<p>Competency in this unit must be assessed through:</p> <ul style="list-style-type: none"> <li>4.1 Practical demonstration</li> <li>4.2 Written examination</li> </ul>
5. Resource Implications	<ul style="list-style-type: none"> <li>5.1 Relevant tools and equipment for basic calculation</li> <li>5.2 Recommended data</li> </ul>
6. Context of Assessment	<ul style="list-style-type: none"> <li>6.1 Assessment may occur in the workplace or in a simulated workplace or as part of a team under limited supervision</li> </ul>

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

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

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

## EVIDENCE GUIDE

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

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 Italicized terms are elaborated in the Range of Variables
1. Manage fire prevention procedures	<p>1.1. Fire hazards on board a vessel are identified and action is taken to eliminate or minimize them</p> <p>1.2. <b><i>Fire detection and fire fighting equipment and systems</i></b> are regularly checked and appropriate action is taken to ensure that they are operational</p> <p>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</p> <p>1.4. Personnel on board a vessel are made aware of emergency procedures to be followed in the event of fire</p>
2. Operate portable fire-fighting equipment	<p>2.1. <b><i>Classes of fires</i></b> are correctly identified in accordance with accepted fire-fighting practice</p> <p>2.2. Correct portable fire-fighting equipment is selected and used to fight specific classes of fires</p> <p>2.3. Class F fires are correctly extinguished with a fire blanket in accordance with accepted fire-fighting practice</p> <p>2.4. <b><i>Methods of extinguishing fire</i></b> on board a vessel are correctly applied</p> <p>2.5. Correct techniques are applied for the setting up of foam making equipment to extinguish B Class fires on board vessel</p> <p>2.6. Where applicable, correct techniques are used to recharge the various types of portable fire extinguisher</p> <p>2.7. Where applicable, portable fire-fighting equipment is confirmed as operational following recharging</p>

<p>3. Conduct interior search and rescue and fire-fighting operations (where applicable)</p>	<p>3.1. Procedures for donning and starting up SCBA / CABA are correctly applied</p> <p>3.2. Procedures for the logging of SCBA / CABA operations on a BA Control Board is correctly 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>

2. Fire detection and fire fighting equipment and system	2.1. Portable fire extinguisher including foam, water, CO2, dry chemical and wet foam 2.2. Fire blankets 2.3. CO2 fixed system 2.4. Foam installation including semi-portable and fixed system 2.5. Sprinkler system 2.6. Fire pumps (main and emergency fire pump) 2.7. Fire hoses, hydrants, branches and international shore connection
3. Methods of Extinguishing fire	3.1. Cooling 3.2. Reducing the ignition temperature by taking the heat out of the fire – using water (limiting the temperature) 3.3. Smothering 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 3.5. Starving 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. 3.7. Chemical Reaction 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)

## EVIDENCE GUIDE

<p>1. Critical aspects of Competency</p>	<p>Assessment requires evidence that the candidate :</p> <ul style="list-style-type: none"> <li>1.1. Managed and implemented fire prevention measures and procedures on board a vessel</li> <li>1.2. Assessed the operational capability of fire detection and fire fighting equipment and systems and initiate any required maintenance or replenishment action</li> <li>1.3. Participated in simulated on board fire fighting activities</li> <li>1.4. Participated in search and rescue and fire fighting teams</li> <li>1.5. Implemented OHS principles and policies when carrying out fire fighting duties</li> <li>1.6. Communicated effectively with others as required during fire emergencies</li> </ul>
<p>2. Underpinning knowledge and attitude</p>	<ul style="list-style-type: none"> <li>2.1. Chemistry of fire and its relationship to materials typically carried on vessels</li> <li>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</li> <li>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</li> <li>2.4. Faults that can occur with shipboard fire detection, fire fighting, life saving and safety equipment and appropriate remedial action and solutions</li> <li>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.</li> </ul>

3. Underpinning skills	<p>3.1.Procedures in checking and replacing consumable materials in typical ship board fire detection, fire-fighting and safety equipment and system</p> <p>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</p> <p>3.3.Procedures in identifying and implementing improvements to maintenance for fire-detection and fire-fighting.</p> <p>3.4.Procedures on onboard housekeeping processes.</p>
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 <b><i>First Aid Care</i></b> 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

<p>2. Recognize the symptoms and acute illness and or injury and take appropriate action</p>	<p>2.1. The <b><i>conditions requiring special first aid procedures</i></b> are correctly identified</p> <p>2.2. A real or simulated unconscious casualty is cared for in accordance with established first aid procedures</p> <p>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</p> <p>2.4. The symptoms and signs of casualty with angina pain, heart attack and heart failure are correctly identified</p> <p>2.5. The symptoms and signs of poisoning, bites and stings are correctly identified and appropriate immediate management of these conditions is provided in real or simulated situation</p> <p>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</p>
<p>3. Manage wounds and bleeding</p>	<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 managed 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>
<p>4. Manage burns</p>	<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>

<p>5. Manage bone, joint and muscle injuries</p>	<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. <b>First aid resources and emergency equipment</b> required for remote area situations is correctly identified and used in real or simulated situations in accordance with established first aid procedures</p>

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

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</i> are elaborated in the Range of Variables
1. Identify garbage disposal procedures	<ul style="list-style-type: none"><li>1.1. Relevant <b><i>guidelines for the implementation of garbage disposal onboard</i></b> are identified and applied to ensure protection of marine environment</li><li>1.2. Relevant company requirements on marine environmental protection is followed as per established practice</li><li>1.3. Appropriate <b><i>measures to prevent operational pollution</i></b> are observed and applied to prevent pollution of the marine environment in accordance with regulations and procedures</li><li>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</li></ul>
2. Perform garbage segregation	<ul style="list-style-type: none"><li>2.1. MARPOL Regulations and procedures concerning protection of marine environment are adequately followed regarding segregation of garbage</li><li>2.2. Marine environment protection programs on board are applied as per established practice</li><li>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</li><li>2.4. Deck rating are provided with necessary information and training to ensure compliance with regulations and procedures for the protection of marine environment</li></ul>

<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"> <li>3.2.1. Name of Ship, call sign and flag</li> <li>3.2.2. Type of Ship and Tonnage</li> <li>3.2.3. Cargo carried</li> <li>3.2.4. Date in Time</li> <li>3.2.5. Position, Course, Speed at time of incident</li> <li>3.2.6. Radio Channel Guarded</li> </ul>

## EVIDENCE GUIDE

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

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. <b>Emergencies</b> 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 <b>contingency plans</b> 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. <b>Survival equipment</b> 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	<b>3.1. Contingency Plan in controlling fire or explosion emergency</b> 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> <ol style="list-style-type: none"> <li>1.1. Took appropriate action in the event of discovering a shipboard emergency</li> <li>1.2. Followed vessel's contingency plans for emergency response</li> <li>1.3. Followed procedures for the use of various life-saving appliances</li> <li>1.4. Implemented damage control following a shipboard emergency in accordance with instructions</li> <li>1.5. Identified typical problems that may occur during a shipboard emergency and take appropriate action</li> <li>1.6. Communicated effectively with others during shipboard emergencies</li> <li>1.7. Participated in drills to prepare shipboard personnel to implement emergency response</li> </ol>
<p>2. Underpinning knowledge and attitude</p>	<ol style="list-style-type: none"> <li>2.1. Knowledge of relevant maritime regulations</li> <li>2.2. Navigational emergencies for vessels and appropriate action and solutions</li> <li>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</li> <li>2.4. Emergency alarm signals and systems in use on vessels and procedures to be followed when an emergency alarm is raised</li> <li>2.5. Escape routes and internal and external communications systems and alarms on board a vessel</li> <li>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</li> <li>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</li> <li>2.8. Maritime communication techniques used during navigational emergencies</li> </ol>

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>