

TRAINING REGULATIONS



FISHING GEAR REPAIR AND MAINTENANCE NC III

AGRICULTURE AND FISHERY SECTOR

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY
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AGRICULTURE AND FISHERY SECTOR

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**TRAINING REGULATIONS FOR
FISHING GEAR REPAIR AND MAINTENANCE NC III**

**Section 1 : FISHING GEAR REPAIR AND MAINTENANCE
National Certificate III**

The Fishing Gear Repair and Maintenance NC III consists of competencies that a person must achieve in leading a team of net menders. Specifically, it involves competencies in making decision in carrying out repair and maintenance of nets.

Non-repairable fishing gears like hook and line are not included in this Training Regulations (TR). The TR also does not include pots and traps, another type of fishing gear, since it is used and repaired by subsistence fisher folks themselves.

This Qualification is packaged from the competency map of the Fishery Sector.

These units of competency comprising this qualification include the following:

Code	BASIC COMPETENCIES
500311109	Lead workplace communication
500311110	Lead small teams
500311111	Develop and practice negotiation skills
500311112	Solve problems related to work activities
500311113	Use mathematical concepts and techniques
500311114	Use relevant technologies

Code	COMMON COMPETENCIES
AGR321201	Apply safety measures in operations
AGR321202	Use tools and equipment
AGR321203	Perform estimation and calculations

Code	CORE COMPETENCIES
AGR642330	Supervise unloading and loading of net
AGR642331	Evaluate net mending
AGR642332	Administer and monitor net mending

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

- **Net Mender Team Leader**

SECTION 2 COMPETENCY STANDARDS

This section gives the details of the contents of the basic, common and core units of competency required in FISHING GEAR REPAIR AND MAINTENANCE NC III

BASIC COMPETENCIES

UNIT OF COMPETENCY : LEAD WORKPLACE COMMUNICATION

UNIT CODE : 500311109

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes required to lead in the dissemination and discussion of ideas, information and issues in the workplace.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized</i> terms are elaborated in the Range of Variables
1. Communicate information about workplace processes	1.1. Appropriate <i>communication method</i> is selected 1.2. Multiple operations involving several topics areas are communicated accordingly 1.3. Questions are used to gain extra information 1.4. Correct sources of information are identified 1.5. Information is selected and organized correctly 1.6. Verbal and written reporting is undertaken when required 1.7. Communication skills are maintained in all situations
2. Lead workplace discussions	2.1. Response to workplace issues are sought 2.2. Response to workplace issues are provided immediately 2.3. Constructive contributions are made to workplace discussions on such issues as production, quality and safety 2.4. Goals/objectives and action plan undertaken in the workplace are communicated

3. Identify and communicate issues arising in the workplace	3.1. Issues and problems are identified as they arise 3.2. Information regarding problems and issues are organized coherently to ensure clear and effective communication 3.3. Dialogue is initiated with appropriate personnel 3.4. Communication problems and issues are raised as they arise
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RANGE OF VARIABLES

VARIABLE	RANGE
1. Methods of communication	1.1. Non-verbal gestures 1.2. Verbal 1.3. Face to face 1.4. Two-way radio 1.5. Speaking to groups 1.6. Using telephone 1.7. Written 1.8. Internet

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. Dealt with a range of communication/information at one time 1.2. Made constructive contributions in workplace issues 1.3. Sought workplace issues effectively 1.4. Responded to workplace issues promptly 1.5. Presented information clearly and effectively written form 1.6. Used appropriate sources of information 1.7. Asked appropriate questions 1.8. Provided accurate information
<p>2. Underpinning knowledge</p>	<ul style="list-style-type: none"> 2.1. Organization requirements for written and electronic communication methods 2.2. Effective verbal communication methods
<p>3. Underpinning Skills</p>	<ul style="list-style-type: none"> 3.1. Organize information 3.2. Understand and convey intended meaning 3.3. Participate in variety of workplace discussions 3.4. Comply with organization requirements for the use of written and electronic communication methods
<p>4. Resource Implications</p>	<p>The following resources MUST be provided:</p> <ul style="list-style-type: none"> 4.1. Variety of Information 4.2. Communication tools 4.3. Simulated workplace
<p>5. Methods of Assessment</p>	<p>Competency may be assessed through:</p> <ul style="list-style-type: none"> 5.1. Competency in this unit must be assessed through 5.2. Direct Observation 5.3. Interview
<p>6. Context for Assessment</p>	<ul style="list-style-type: none"> 6.1. Competency may be assessed in the workplace or in simulated workplace environment 6.2. Assessment shall be observed while task are being undertaken whether individually or in-group

UNIT OF COMPETENCY : LEAD SMALL TEAMS

UNIT CODE : 500311110

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes to lead small teams including setting and maintaining team and individual performance standards.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized</i> terms are elaborated in the Range of Variables
1. Provide team leadership	1.1. Work requirements are identified and presented to team members 1.2. Reasons for instructions and requirements are communicated to team members 1.3. Team members' queries and concerns are recognized, discussed and dealt with
2. Assign responsibilities	2.1. Duties, and responsibilities are allocated having regard to the skills, knowledge and aptitude required to properly undertake the assigned task and according to company policy 2.2. Duties are allocated having regard to individual preference, domestic and personal considerations, whenever possible
3. Set performance expectations for team members	3.1. Performance expectations are established based on client needs and according to assignment requirements 3.2. Performance expectations are based on individual team members duties and area of responsibility 3.3. Performance expectations are discussed and disseminated to individual team members

<p>4. Supervised team performance</p>	<p>4.1. Monitoring of performance takes place against defined performance criteria and/or assignment instructions and corrective action taken if required</p> <p>4.2. Team members are provided with feedback, positive support and advice on strategies to overcome any deficiencies</p> <p>4.3. Performance issues which cannot be rectified or addressed within the team are referenced to appropriate personnel according to employer policy</p> <p>4.4. Team members are kept informed of any changes in the priority allocated to assignments or tasks which might impact on client/customer needs and satisfaction</p> <p>4.5. Team operations are monitored to ensure that employer/client needs and requirements are met</p> <p>4.6. Follow-up communication is provided on all issues affecting the team</p> <p>4.7. All relevant documentation is completed in accordance with company procedures</p>
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RANGE OF VARIABLES

VARIABLE	RANGE
1. Work requirements	1.1. Client Profile 1.2. Assignment instructions
2. Team member's concerns	2.1. Roster/shift details
3. Monitor performance	3.1. Formal process 3.2. Informal process
4. Feedback	4.1. Formal process 4.2. Informal process
5. Performance issues	5.1. Work output 5.2. Work quality 5.3. Team participation 5.4. Compliance with workplace protocols 5.5. Safety 5.6. Customer service

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. Maintained or improved individuals and/or team performance given a variety of possible scenario 1.2. Assessed and monitored team and individual performance against set criteria 1.3. Represented concerns of a team and individual to next level of management or appropriate specialist and to negotiate on their behalf 1.4. Allocated duties and responsibilities, having regard to individual's knowledge, skills and aptitude and the needs of the tasks to be performed 1.5. Set and communicated performance expectations for a range of tasks and duties within the team and provided feedback to team members
<p>2. Underpinning Knowledge</p>	<ol style="list-style-type: none"> 2.1. Company policies and procedures 2.2. Relevant legal requirements 2.3. How performance expectations are set 2.4. Methods of Monitoring Performance 2.5. Client expectations 2.6. Team member's duties and responsibilities
<p>3. Underpinning Skills</p>	<ol style="list-style-type: none"> 3.1. Communication skills required for leading teams 3.2. Informal performance counseling skills 3.3. Team building skills 3.4. Negotiating skills
<p>4. Resource Implications</p>	<p>The following resources MUST be provided:</p> <ol style="list-style-type: none"> 4.1. Access to relevant workplace or appropriately simulated environment where assessment can take place 4.2. Materials relevant to the proposed activity or task

<p>5. Methods of Assessment</p>	<p>Competency may be assessed through:</p> <ul style="list-style-type: none"> 5.1. Direct observations of work activities of the individual member in relation to the work activities of the group 5.2. Observation of simulation and/or role play involving the participation of individual member to the attainment of organizational goal 5.3. Case studies and scenarios as a basis for discussion of issues and strategies in teamwork
<p>6. Context for Assessment</p>	<ul style="list-style-type: none"> 6.1. Competency assessment may occur in workplace or any appropriately simulated environment 6.2. Assessment shall be observed while task are being undertaken whether individually or in-group

UNIT OF COMPETENCY: DEVELOP AND PRACTICE NEGOTIATION SKILLS

UNIT CODE : 500311111

UNIT DESCRIPTOR : This unit covers the skills, knowledge and attitudes required to collect information in order to negotiate to a desired outcome and participate in the negotiation.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized</i> terms are elaborated in the Range of Variables
1. Plan negotiations	1.1 Information on <i>preparing for negotiation</i> is identified and included in the plan 1.2 Information on creating <i>non verbal environments</i> for positive negotiating is identified and included in the plan 1.3 Information on <i>active listening</i> is identified and included in the plan 1.4 Information on different <i>questioning techniques</i> is identified and included in the plan 1.5 Information is checked to ensure it is correct and up-to- date
2. Participate in negotiations	2.1 Criteria for successful outcome are agreed upon by all parties 2.2 Desired outcome of all parties are considered 2.3 Appropriate language is used throughout the negotiation 2.4 A variety of questioning techniques are used 2.5 The issues and processes are documented and agreed upon by all parties 2.6 Possible solutions are discussed and their viability assessed 2.7 Areas for agreement are confirmed and recorded 2.8 Follow-up action is agreed upon by all parties

RANGE OF VARIABLES

VARIABLE	RANGE
1. Preparing for negotiation	1.1 Background information on other parties to the negotiation 1.2 Good understanding of topic to be negotiated 1.3 Clear understanding of desired outcome/s 1.4 Personal attributes 1.4.1. self awareness 1.4.2. self esteem 1.4.3. objectivity 1.4.4. empathy 1.4.5. respect for others 1.5 Interpersonal skills 1.5.1. listening/reflecting 1.5.2. non verbal communication 1.5.3. assertiveness 1.5.4. behavior labeling 1.5.5. testing understanding 1.5.6. seeking information 1.5.7. self disclosing 1.6 Analytic skills 1.6.1. observing differences between content and process 1.6.2. identifying bargaining information 1.6.3. applying strategies to manage process 1.6.4. applying steps in negotiating process 1.6.5. strategies to manage conflict 1.6.6. steps in negotiating process 1.6.7. options within organization and externally for resolving conflict
2. Non verbal environments	2.1 Friendly reception 2.2 Warm and welcoming room 2.3 Refreshments offered 2.4 Lead in conversation before negotiation begins
3. Active listening	3.1 Attentive 3.2 Don't interrupt 3.3 Good posture 3.4 Maintain eye contact 3.5 Reflective listening
4. Questioning techniques	4.1 Direct 4.2 Indirect 4.3 Open-ended

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. Demonstrated sufficient knowledge of the factors influencing negotiation to achieve agreed outcome 1.2. Participated in negotiation with at least one person to achieve an agreed outcome
<p>2. Underpinning Knowledge and Attitude</p>	<ul style="list-style-type: none"> 2.1. Codes of practice and guidelines for the organization 2.2. Organizations policy and procedures for negotiations 2.3. Decision making and conflict resolution strategies procedures 2.4. Problem solving strategies on how to deal with unexpected questions and attitudes during negotiation 2.5. Flexibility 2.6. Empathy
<p>3. Underpinning Skills</p>	<ul style="list-style-type: none"> 3.1. Interpersonal skills to develop rapport with other parties 3.2. Communication skills (verbal and listening) 3.3. Observation skills 3.4. Negotiation skills
<p>4. Resource Implications</p>	<p>The following resources MUST be provided:</p> <ul style="list-style-type: none"> 4.1 Room with facilities necessary for the negotiation process 4.2 Human resources (negotiators)
<p>5. Methods of Assessment</p>	<p>Competency may be assessed through:</p> <ul style="list-style-type: none"> 5.1 Observation/demonstration and questioning 5.2 Portfolio assessment 5.3 Oral and written questioning 5.4 Third party report
<p>6. Context for Assessment</p>	<ul style="list-style-type: none"> 6.1 Competency to be assessed in real work environment or in a simulated workplace setting.

UNIT OF COMPETENCY : SOLVE PROBLEMS RELATED TO WORK ACTIVITIES

UNIT CODE : 500311112

UNIT DESCRIPTOR : This unit of covers the knowledge, skills and attitudes required to solve problems in the workplace including the application of problem solving techniques and to determine and resolve the root cause of problems.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized</i> terms are elaborated in the Range of Variables
1. Identify the problem	1.1. Variances are identified from normal operating parameters; and product quality 1.2. Extent, cause and nature are of the problem are defined through observation, investigation and analytical techniques 1.3. Problems are clearly stated and specified
2. Determine fundamental causes of the problem	2.1. Possible causes are identified based on experience and the use of problem solving tools / analytical techniques. 2.2. Possible cause statements are developed based on findings 2.3. Fundamental causes are identified per results of investigation conducted
3. Determine corrective action	3.1. All possible options are considered for resolution of the problem 3.2. Strengths and weaknesses of possible options are considered 3.3. Corrective actions are determined to resolve the problem and possible future causes 3.4. Action plans are developed identifying measurable objectives, resource needs and timelines in accordance with safety and operating procedures
4. Provide recommendation/s to manager	4.1. Report on recommendations are prepared 4.2. Recommendations are presented to appropriate personnel. 4.3. Recommendations are followed-up, if required

RANGE OF VARIABLES

VARIABLE	RANGE
1. Analytical techniques	1.1. Brainstorming 1.2. Intuitions/Logic 1.3. Cause and effect diagrams 1.4. Pareto analysis 1.5. SWOT analysis 1.6. Gant chart, Pert CPM and graphs 1.7. Scattergrams
2. Problem	2.1. Non – routine process and quality problems 2.2. Equipment selection, availability and failure 2.3. Teamwork and work allocation problem 2.4. Safety and emergency situations and incidents
3. Action plans	3.1. Priority requirements 3.2. Measurable objectives 3.3. Resource requirements 3.4. Timelines 3.5. Co-ordination and feedback requirements 3.6. Safety requirements 3.7. Risk assessment 3.8. Environmental requirements

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. Identified the problem 1.2. Determined the fundamental causes of the problem 1.3. Determined the correct / preventive action 1.4. Provided recommendation to manager <p>These aspects may be best assessed using a range of scenarios / case studies / what ifs as a stimulus with a walk through forming part of the response. These assessment activities should include a range of problems, including new, unusual and improbable situations that may have happened.</p>
<p>2. Underpinning Knowledge</p>	<ol style="list-style-type: none"> 2.1. Competence includes a thorough knowledge and understanding of the process, normal operating parameters, and product quality to recognize non-standard situations 2.2. Competence to include the ability to apply and explain, sufficient for the identification of fundamental cause, determining the corrective action and provision of recommendations <ol style="list-style-type: none"> 2.2.1. Relevant equipment and operational processes 2.2.2. Enterprise goals, targets and measures 2.2.3. Enterprise quality, OHS and environmental requirement 2.2.4. Principles of decision making strategies and techniques 2.2.5. Enterprise information systems and data collation 2.2.6. Industry codes and standards
<p>3. Underpinning Skills</p>	<ol style="list-style-type: none"> 3.1. Using range of formal problem solving techniques 3.2. Identifying and clarifying the nature of the problem 3.3. Devising the best solution 3.4. Evaluating the solution 3.5. Implementation of a developed plan to rectify the problem

4. Resource Implications	4.1. Assessment will require access to an operating plant over an extended period of time, or a suitable method of gathering evidence of operating ability over a range of situations. A bank of scenarios / case studies / what ifs will be required as well as bank of questions which will be used to probe the reason behind the observable action.
5. Methods of Assessment	<p>Competency may be assessed through:</p> <p>5.1. Case studies on solving problems in the workplace</p> <p>5.2. Observation</p> <p>The unit will be assessed in a holistic manner as is practical and may be integrated with the assessment of other relevant units of competency. Assessment will occur over a range of situations, which will include disruptions to normal, smooth operation. Simulation may be required to allow for timely assessment of parts of this unit of competency. Simulation should be based on the actual workplace and will include walk through of the relevant competency components.</p>
6. Context for Assessment	6.1. In all workplace, it may be appropriate to assess this unit concurrently with relevant teamwork or operation units.

UNIT OF COMPETENCY: USE MATHEMATICAL CONCEPTS AND TECHNIQUES

UNIT CODE : 500311113

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes required in the application of mathematical concepts and techniques.

ELEMENT	Performance Criteria <i>Italicized</i> terms are elaborated in the Range of Variables
1. Identify mathematical tools and techniques to solve problem	1.1 Problem areas are identified based on given condition 1.2 Mathematical techniques are selected based on the given problem
2. Apply mathematical procedure/solution	2.1 Mathematical techniques are applied based on the problem identified 2.2 Mathematical computations are performed to the level of accuracy required for the problem 2.3 Results of mathematical computation is determined and verified based on job requirements
3. Analyze results	3.1 Result of application is reviewed based on expected and required specifications and outcome 3.2 Appropriate action is applied in case of error

RANGE OF VARIABLES

VARIABLE	RANGE
1. Mathematical techniques	May include but are not limited to: 1.1. Four fundamental operations Measurements 1.2. Use/Conversion of units of measurements 1.3. Use of standard formulas
2. Appropriate action	2.1 Review in the use of mathematical techniques (e.g. recalculation, re-modeling) 2.2 Report error to immediate superior for proper action

EVIDENCE GUIDE

1. Critical Aspects of Competency	Assessment requires evidence that the candidate: 1.1 Identified, applied and reviewed the use of mathematical concepts and techniques to workplace problems
2. Underpinning Knowledge	2.1 Fundamental operation (addition, subtraction, division, multiplication) 2.2 Measurement system 2.3 Precision and accuracy 2.4 Basic measuring tools/devices
3. Underpinning Skills	3.1 Applying mathematical computations 3.2 Using calculator 3.3. Using different measuring tools
4. Resource Implications	The following resources MUST be provided: 4.1 Calculator 4.2 Basic measuring tools 4.3 Case Problems
5. Methods of Assessment	Competency may be assessed through: 5.1 Authenticated portfolio 5.2 Written Test 5.3. Interview/Oral Questioning 5.4. Demonstration
6. Context for Assessment	6.1. Competency may be assessed in the work place or in a simulated work place setting

UNIT OF COMPETENCY: USE RELEVANT TECHNOLOGIES

UNIT CODE : 500311114

UNIT DESCRIPTOR : This unit of competency covers the knowledge, skills, and attitude required in selecting, sourcing and applying appropriate and affordable technologies in the workplace.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms are elaborated in the Range of Variables</i>
1. Study/select appropriate technology	1.1. Usage of different technologies is determined based on job requirements 1.2. Appropriate technology is selected as per work specification
2. Apply relevant technology	2.1. Relevant technology is effectively used in carrying out function 2.2. Applicable software and hardware are used as per task requirement 2.3. Management concepts are observed and practiced as per established industry practices
3. Maintain/enhance of relevant technology	3.1. Maintenance of technology is applied in accordance with the industry standard operating procedure, manufacturer's operating guidelines and occupational health and safety procedure to ensure its operative ability 3.2. Updating of technology is maintained through continuing education or training in accordance with job requirement 3.3. Technology failure/ defect is immediately reported to the concern/responsible person or section for appropriate action

RANGE OF VARIABLES

VARIABLE	RANGE
1. Technology	May include but are not limited to: 1.1. Office technology 1.2. Industrial technology 1.3. System technology 1.4. Information technology 1.5. Training technology
2. Management concepts	May include but not limited to: 2.1 Real Time Management 2.2 KAIZEN or continuous improvement 2.3 5s 2.4. Total Quality Management 2.5. Other management/productivity tools
3. Industry standard operating procedure	3.1. Written guidelines relative to the usage of office technology/equipment 3.2. Verbal advise/instruction from the co-worker
4. Manufacturer's operating guidelines/ instructions	4.1 Written instruction/manuals of specific Technology/ equipment 4.2 General instruction manual 4.3 Verbal advise from manufacturer relative to the operation of equipment
5. Occupational health and safety procedure	5.1 Relevant statutes on OHS 5.2 Company guidelines in using technology/equipment
6. Appropriate action	6.1 Implementing preventive maintenance schedule 6.2 Coordinating with manufacturer's technician

EVIDENCE GUIDE

1. Critical aspects of Competency	Assessment requires evidence that the candidate: 1.1 Studied and selected appropriate technology consistent with work requirements 1.2 Applied relevant technology 1.3 Maintained and enhanced operative ability of relevant technology
2. Underpinning Knowledge	2.1 Awareness on technology and its function 2.2 Repair and maintenance procedure 2.3 Operating instructions 2.4 Applicable software 2.5 Communication techniques 2.6 Health and safety procedure 2.7 Company policy in relation to relevant technology 2.8 Different management concepts 2.9 Technology adaptability
3. Underpinning Skills	3.1 Relevant technology application/implementation 3.2 Basic communication skills 3.3 Software applications skills 3.4 Basic troubleshooting skills
4. Resource Implications	The following resources MUST be provided: 4.1 Relevant technology 4.2 Interview and demonstration questionnaires 4.3 Assessment packages
5. Methods of Assessment	Competency must be assessed through: 5.1 Interview 5.2 Actual demonstration 5.3 Authenticated portfolio (related certificates of training/seminar)
6. Context for Assessment	6.1 Competency may be assessed in actual workplace or simulated environment

COMMON COMPETENCIES

UNIT TITLE : **APPLY SAFETY MEASURES IN 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 terms are elaborated in the Range of Variables</i>
1. Determine areas of concern for safety measures	1.1 Work tasks are identified in line with safework operations 1.2 Place for safety measures are determined in line with safework operations 1.3 Time for safety measures are determined in line with safework 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 work requirements 2.3 Effectivity/shelf life/expiration of materials are strictly observed 2.4 Emergency procedures are known and followed to ensure a safework efficiency 2.5 Hazards in the workplace are identified and reported in line with industry 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 requirements 3.3 Waste materials are disposed according to manufacturers, government and industry requirements

RANGE OF VARIABLES

VARIABLE	RANGE
1. Tools, materials and outfits	1.1 Tools 1.1.1 Netting needles 1.1.2 Knives 1.1.3 Scissors 1.1.4 Measuring tools 1.1.5 Stands 1.1.6 Tensioning devices 1.2 Materials 1.2.1 Gill netting 1.2.2 Purse seine netting 1.2.3 Gear plan 1.2.4 Twine 1.3 Outfit 1.3.1 Masks 1.3.2 Gloves 1.3.3 Boots 1.3.4 Overall coats 1.3.5 Hat 1.3.6 Eye goggles
2. Efficiency	2.1 Posture of worker 2.2 Safety of working area 2.3 Proximity of resources 2.4 Worker comfort 2.5 Speed of work
3. Waste materials	3.1 Broken needles 3.2 Damaged netting
4. Hazards	4.1 Broken tools 4.2 Defective equipment / machinery 4.3 Chemical 4.4 Electrical 4.5 Falls

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 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
<p>2. Underpinning Knowledge and Attitudes</p>	<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
<p>3. Underpinning Skills</p>	<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
<p>4. Method of Assessment</p>	<p>Competency may be assessed through:</p> <ul style="list-style-type: none"> 4.1 Practical demonstration 4.2 Third Party Report
<p>5. Resource Implications</p>	<p>The following resources MUST be provided:</p> <ul style="list-style-type: none"> 5.1 Work location 5.2 Tools, equipment and outfits appropriate in applying safety measures
<p>6. Context of Assessment</p>	<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 OF COMPETENCY : USE TOOLS AND EQUIPMENT

UNIT CODE : AGR321202

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

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

RANGE OF VARIABLES

VARIABLE	RANGE
1. Tools	1.1 Needles 1.2 Cutters / Scissors 1.3 Weighing scales 1.4 Hand tools 1.5 Measuring tools 1.6 Tensioning Devices
2. Equipment	2.1 Engine 2.2 Pumps 2.3 Generators 2.4 Power Block 2.5 Utility Crane
3. Pre-operation check-up	3.1 Brake fluid 3.2 Fuel 3.3 Water 3.4 Oil 3.5 Lubricants 3.6 Battery

EVIDENCE GUIDE

1. Critical Aspects of Competency	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Correctly identified appropriate tools and equipment 1.2 Operated equipment according to manual specification 1.3 Performed preventive maintenance
2. Underpinning Knowledge and Attitudes	<ul style="list-style-type: none"> 2.1 Safety Practices <ul style="list-style-type: none"> 2.1.1 Ideal good work habits to demonstrate to workers easy and safety standards during operation of equipment 2.2 Codes and Regulations <ul style="list-style-type: none"> 2.2.1 Environmental Compliance Certificate (ECG) 2.2.2 Effective work supervision in the operations of equipment 2.3 Tools & Equipment: Uses and Specification <ul style="list-style-type: none"> 2.3.1 Knowledge in calibrating and use of equipment 2.3.2 Safety keeping of equipments every after use 2.4 Maintenance <ul style="list-style-type: none"> 2.4.1 Regular upkeep of equipments 2.4.2 Preventive maintenance skills 2.5 Values <ul style="list-style-type: none"> 2.5.1 Positive outlook towards work 2.5.2 Possesses pre-emptive/anticipatory skills
3. Underpinning Skills	<ul style="list-style-type: none"> 3.1 Ability to recognized defective farm equipment 3.2 Perform proper management practices of safety measures
4. Method of Assessment	<p>Competency may be assessed through:</p> <ul style="list-style-type: none"> 4.1 Direct observation 4.2 Practical demonstration 4.3 Third Party Report
5. Resource Implications	<p>The following resources MUST be provided:</p> <ul style="list-style-type: none"> 5.1 Service/operational manual of tools and equipment 5.2 Tools and equipment
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 OF COMPETENCY : PERFORM ESTIMATION AND CALCULATION

UNIT CODE : AGR321203

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

ELEMENT	PERFORMANCE CRITERIA Italicized 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. Calculation	1.1 Materials needed 1.2 Man hours
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

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

UNIT CODE: AGR642330

UNIT DESCRIPTOR This unit covers the skills, knowledge and attitudes required to supervise unloading and loading of net but limited to the supervisor’s instructions. It also includes securing and protecting ring and purse seine nets in hauling.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms are elaborated in the Range of Variables</i>
1. Manage unloading and loading of net	1.1 Net specifications are identified in accordance to loading and unloading procedures 1.2 Net is properly cut in accordance to gear plan. 1.3 Deck machinery is used to aid loading and unloading procedures in compliance with workplace procedures and safety regulations 1.4 Net parts are loaded in accordance with relevant loading regulations and workplace procedures 1.5 Net is connected to resemble original netting. 1.6 Unloading activities are carried out in a safe and efficient way in appropriate work area and safe use of machinery 1.7 Team members are supervised according to given instructions by the net supervisor
2. Secure and protect net in hauling	2.1 The condition of the net is inspected and checked in accordance to approved specifications 2.2 Net is secured and protected using established safety rules and requirements
3. Exercise safety and hazard control precautions	3.1 Protective equipment is used in accordance with OH&S regulations 3.2 Safety and hazard precautions are correctly followed during unloading and loading operations

RANGE OF VARIABLES

VARIABLE	RANGE
1 Net specifications	1.1 Types of net 1.1.1. Ring net 1.1.2. Purse seine net 1.2 Length 1.3 Depth
2 Net parts	2.1 Float and float line 2.2 Sinkers and sinker line 2.3 Ring 2.4 Bunt 2.5 Main body net 2.6 Selvage 2.7 Purse line 2.8 Towing line
3 Deck machinery	3.1 Power block 3.2 Utility Crane
4 Workplace procedures	4.1 Supervisor/Manager instructions 4.2 Standard operating procedures 4.3 OH&S requirements 4.4 Company policies and procedures 4.5 Codes of Practice and related advice
5 Personal protective equipment	5.1 Hard hat 5.2 Safety footwear
6 Documentation	6.1 Equipment manufacturer's instructions 6.2 Procedures and policies for the unloading and loading of net 6.3 Codes of practice 6.4 Emergency procedures
7 Government and international requirements	7.1 Relevant Philippine legislation, regulations and orders and international requirements related to the unloading and loading of nets

EVIDENCE GUIDE

1. Critical aspects of Competency	<p>Assessment requires evidences that the candidate</p> <ol style="list-style-type: none"> 1.1. Identified net specifications in accordance with procedures 1.2. Safely loaded and unloaded nets following workplace procedures 1.3. Exercised required safety and hazard control precautions during unloading and loading net 1.4. Communicated effectively with others in unloading and loading net in workplace
2. Underpinning Knowledge and Attitudes	<ol style="list-style-type: none"> 2.1. Relevant loading and unloading regulations 2.2. Relevant OH& S policies and procedures relating to unloading and loading 2.3. Related precautions to control risk in unloading and loading net 2.4. Workplace procedures and policies for the unloading and loading net 2.5. Methods of securing and protecting a net
3. Underpinning Skills	<ol style="list-style-type: none"> 3.1. Modifying activities during risk situations and environments 3.2. Reading and understanding simple statements 3.3. Planning and organizing work 3.4. Working with others and in teams
4. Resource Implication	<p>The following resources MUST be provided:</p> <ol style="list-style-type: none"> 4.1. Work area and workplace policies 4.2. Materials and equipment relevant to unloading and loading of net
5 Methods of Assessment	<p>Competency may be assessed through :</p> <ol style="list-style-type: none"> 5.1. Through direct observation / demonstration 5.2. Portfolio
6. Context of Assessment	<ol style="list-style-type: none"> 6.1. Assessment is to be conducted at the workplace or simulated work environment

UNIT OF COMPETENCY: EVALUATE NET MENDING

UNIT CODE: AGR642331

PREQUISITE: AGR641303

UNIT DESCRIPTOR

This unit covers the skills, knowledge and attitudes required to evaluate net mending, including assessing damaged nets and recommending netting materials for replacement as well as translating gear plan.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms are elaborated in the Range of Variables</i>
1. Translate gear plan	1.1 Net damages are identified and indicated in the gear plan in accordance to supervisor's instructions. 1.2 Instructions and abbreviations in gear plan are correctly interpreted in accordance to specifications.
2. Assess damaged nets	2.1 Net characteristics and conditions are examined and recorded in accordance to approved specifications. 2.2 Required documentation for net repair is completed in accordance to requirements
3. Recommend list of required netting materials	3.1 Netting materials for replacement are identified with prescribed specifications and supervisor's instructions. 3.2 Materials are submitted for purchase according to specifications

RANGE OF VARIABLES

VARIABLE	RANGE
1 Net damage	1.1 Holes 1.2 Rips 1.3 Unaligned 1.4 Worn out /weak net
2 Net characteristics and conditions	2.1 Total length 2.2 Contraction rate 2.3 Net depth 2.4 Chain arrangement 2.5 Purse wire arrangement 2.6 Bridle chain and purse ring arrangement 2.7 Towing line arrangement
3 Netting materials	3.1 Polyethylene 3.2 Polyamide (nylon) 3.3 Polyester 3.4 Polypropylene rope 3.5 Alloy chain 3.6 Galvanize iron ring 3.7 Plastic float
4 Documentation	4.1 Equipment manufacturer's instructions 4.2 Procedures and policies for repairing net
5 Government and international requirements	5.1 Relevant Philippine legislation, regulations and orders and international requirements related to evaluation of net mending

EVIDENCE GUIDE

1. Critical aspects of Competency	<p>Assessment requires evidences that the candidate</p> <ul style="list-style-type: none"> 1.1 Translated correctly gear plan by identifying net damage and netting materials 1.2 Assessed damaged nets by indicating net characteristics and specifications 1.3 Recommended required netting materials for purchase according to specifications
2. Underpinning Knowledge and Attitudes	<ul style="list-style-type: none"> 2.1 Basic understanding of net repair and maintenance as well as netting terms 2.2. Relevant OH& S requirements 2.3. Basic understanding of types of netting, netting materials, net specifications 2.4. Workplace procedures and policies relating to evaluation of net mending activities 2.5. Gear plan description
3. Underpinning Skills	<ul style="list-style-type: none"> 3.1 Preparing and identifying netting materials, tools 3.2 Interpreting gear plan 3.3 Numeracy skills used for counting, measuring and calculating twine specifications, meshes and ratios
4. Resource Implication	<p>The following resources MUST be provided:</p> <ul style="list-style-type: none"> 4.3. Gear plan, damaged nets 4.4. Operational work area for net repair
5 Methods of Assessment	<p>Competency may be assessed through :</p> <ul style="list-style-type: none"> 5.1. Through direct observation / demonstration 5.2. Portfolio
6. Context of Assessment	<ul style="list-style-type: none"> 6.1. Assessment is to be conducted at the workplace or simulated work environment

UNIT OF COMPETENCY: ADMINISTER AND MONITOR NET MENDING

UNIT CODE: AGR642332

PREQUISITE: AGR641303

UNIT DESCRIPTOR This unit covers the skills, knowledge and attitudes required to administer and monitor net mending, including instructing net repairs and monitoring mending activities.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms are elaborated in the Range of Variables</i>
1. Set directions in repairing damaged nets	1.1 Appropriate action is initiated to fix the damaged net in accordance to supervisor's instructions 1.2 Repairs are instructed and coordinated in accordance to standard procedures 1.3 Communication with net menders relating to net repair is clear, concise and done at a proper time and place
2. Monitor mending activities	2.1 Coverage and rate of inspections on net mending activities are complied with the standard procedures 2.2 Check of net mending is performed correctly according to workplace procedures 2.3 Actions are carried out to ensure net mending is in accordance to gear plan, supervisor's instructions and OH&S requirements 2.4 Communication with supervisor relating to net characteristics and condition is clear, brief and timely 2.5 Net damaged and actions taken are recorded completely and based on requirements

RANGE OF VARIABLES

VARIABLE	RANGE
1 Workplace procedures	1.1 Supervisor/Manager instructions 1.2 Standard operating procedures 1.3 Company policies and procedures
2 Documentation	2.1 Equipment manufacturer's instructions 2.2 Procedures and policies for repairing net
3. Government and international requirements	3.1 Relevant Philippine legislation, regulations and orders and international requirements related to administer and monitor net mending

EVIDENCE GUIDE

1. Critical aspects of Competency	<p>Assessment requires evidences that the candidate</p> <ul style="list-style-type: none"> 1.1 Initiated and coordinated maintenance and repair of damaged nets 1.2 Monitored mending activities in accordance to workplace requirements 1.3 Communicated effectively with others when administering and monitoring net mending
2. Underpinning Knowledge and Attitudes	<ul style="list-style-type: none"> 2.1 Factors affecting efficiency in net repair 2.2 Basic understanding of net repair and maintenance as well as netting terms 2.3 Relevant OH& S requirements 2.4 Workplace procedures and policies relating to net repair and maintenance as well as monitoring net mending activities
3. Underpinning Skills	<ul style="list-style-type: none"> 3.1 Undertaking repair operation including mending, shaping, strengthening, knotting, joining and lacing 3.2 Communicating with net menders in setting directives and monitoring mending activities 3.3. Numeracy skills used for counting, measuring and calculating twine specifications, meshes and ratios
4. Resource Implication	<p>The following resources MUST be provided:</p> <ul style="list-style-type: none"> 4.5. Gear plan, damaged nets 4.6. Operational work area for net repair
5 Methods of Assessment	<p>Competency may be assessed through :</p> <ul style="list-style-type: none"> 5.1. Through direct observation / demonstration 5.2. Portfolio
6. Context of Assessment	<ul style="list-style-type: none"> 6.1. Assessment is to be conducted at the workplace or simulated work environment

SECTION 3 TRAINING STANDARDS

This set of standards provides Technical and Vocational Education and Training (TVET) providers with information and other important requirements to consider when designing training programs for Fishing Gear Repair and Maintenance NC III.

This includes information on curriculum design; training delivery; trainee entry requirements; tools and equipment; training facilities; and trainers qualification.

3.1 CURRICULUM DESIGN

Course Title: FISHING GEAR REPAIR AND MAINTENANCE

NC Level: NC III

Nominal Training Duration: 18 Hours (Basic)

14 Hours (Common)

120 Hours (Core)

152 Hours (Total)

Course Description:

This course is designed to enhance the knowledge, skills and attitude of Net Mender Team Leader in accordance with industry standards. It covers core competencies on supervising unload and load of net, assembling and repairing damaged netting as well as evaluating, administering and monitoring net mending.

To obtain this, all units prescribed for this qualification must be achieved:

BASIC COMPETENCY

Unit of Competency	Learning Outcomes	Methodology	Assessment Approach
1. Lead workplace communication.	1.1. Communicate information about workplace processes 1.2. Lead workplace discussions 1.3. Identify and communicate issues arising in the workplace	<ul style="list-style-type: none">• Group discussion• Role play• Brainstorming	<ul style="list-style-type: none">• Observation• Interviews

2. Lead small teams.	2.1. Provide team leadership 2.2. Assign responsibilities among members 2.3. Set performance expectation for team members 2.4. Supervise team performance	<ul style="list-style-type: none"> • Lecture • Demonstration • Self-paced (modular) 	<ul style="list-style-type: none"> • Demonstration • Case studies
3. Develop and practice negotiation skills	3.1. Plan negotiations 3.2. Participate in negotiations	<ul style="list-style-type: none"> ▪ Direct observation ▪ Simulation/role playing ▪ Case studies 	<ul style="list-style-type: none"> ▪ Written test ▪ Practical/performance test
4. Solve problems related to work activities	4.1. Explain the analytical techniques 4.2. Identify the problem 4.3. Determine the possible cause/s of the problem	<ul style="list-style-type: none"> ▪ Direct observation ▪ Simulation/Role playing ▪ Case studies 	<ul style="list-style-type: none"> ▪ Written test ▪ Practical/performance test
5. Use mathematical concepts and techniques	5.1. Identify mathematical tools and techniques to solve problem 5.2. Apply mathematical procedures/solution 5.3. Analyze results	<ul style="list-style-type: none"> ▪ Direct observation ▪ Simulation/role playing ▪ Case studies 	<ul style="list-style-type: none"> ▪ Written test ▪ Practical/performance test
6. Use relevant technologies	6.1. Identify appropriate technology 6.2. Apply relevant technology 6.3. Maintain/enhance relevant technology	<ul style="list-style-type: none"> ▪Direct observation ▪Simulation/ role playing ▪Case Studies 	<ul style="list-style-type: none"> ▪ Written test ▪ Practical/performance test

COMMON COMPETENCY

Unit of Competency	Learning Outcomes	Methodology	Assessment Approach
1. Apply safety measures in farm operations	1.1. Determine areas of concern for safety measures 1.2. Apply appropriate safety measures 1.3. Safekeep/maintain/dispose tools, materials and outfit.	<ul style="list-style-type: none"> • Self-paced/modular • Lecture/Discussion • Interaction • Practical Demonstration • Visit/tour 	<ul style="list-style-type: none"> • Oral/Written Interviews • Direct Observation • Practical Demonstration
2. Use farm tools and equipment	2.1. Prepare and use farm tools 2.2. Prepare and operate farm equipment 2.3. Perform preventive maintenance procedures/practices	<ul style="list-style-type: none"> • Self-paced/modular • Lecture/Discussion • Interaction • Practical Demonstration • Visit/tour 	<ul style="list-style-type: none"> • Oral/Written Interviews • Direct Observation • Practical Demonstration
3. Perform estimation and basic calculation	3.1. Perform estimation 3.2. Perform basic workplace calculation	<ul style="list-style-type: none"> • Self-paced/modular • Lecture/Discussion • Interaction • Practical Exercise 	<ul style="list-style-type: none"> • Oral/Written examination • Practical exercise

CORE COMPETENCY

Unit of Competency	Learning Outcomes	Methodology	Assessment Approach
1. Supervise unloading and loading of net	1.1 Manage unloading and loading of net 1.2 Secure and protect net in hauling	<ul style="list-style-type: none"> ▪ Discussion ▪ Demonstration ▪ Simulation / Role Playing ▪ Practical Exercises 	<ul style="list-style-type: none"> ▪ Actual Demonstration ▪ Observation ▪ Questioning
2. Evaluate net mending	2.1 Assess damaged nets 2.2 Recommend netting materials	<ul style="list-style-type: none"> ▪ Discussion ▪ Demonstration ▪ Simulation / Role Playing ▪ Practical Exercise 	<ul style="list-style-type: none"> ▪ Actual Demonstration ▪ Observation ▪ Questioning
3. Administer and monitor net mending	3.1 Instruct net repairs 3.2 Monitor mending activities	<ul style="list-style-type: none"> ▪ Discussion ▪ Demonstration ▪ Simulation / Role Playing ▪ Practical Exercise 	<ul style="list-style-type: none"> ▪ Actual Demonstration ▪ Observation ▪ Questioning

3.2 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 just 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, audio, video or computer technologies.

3.3 TRAINEE ENTRY REQUIREMENTS

Trainees or students wishing to gain entry into this course should possess the following requirements:

- can communicate either oral and written
- physically and mentally fit
- with good moral character
- can perform basic mathematical computation
- have attended training on Fish Capture or have had equivalent experience or have been certified in the Unit of Competency – Assemble and repair damaged netting.

3.4 TOOLS AND EQUIPMENT AND MATERIALS FISHING GEAR REPAIR AND MAINTENANCE NC III

Recommended list of tools, equipment and materials for the training of 25 trainees for Fishing Gear Repair and Maintenance NC III

TOOLS		EQUIPMENT		MATERIALS	
QTY	DESCRIPTION	QTY	DESCRIPTION	QTY	DESCRIPTION
25	• Knives	25	• Personal protective gear • (hard hat, hand cover and safety footwear)	5	• Gear plan
25	• Scissors	1	• Fishing vessel	1	• Purse seine net
25	• Netting needles	1	• Net hauler	25	• Twine
				5	• Paper and pen
				25	• Rope

3.5 TRAINING FACILITIES FISHING GEAR REPAIR AND MAINTENANCE NC III

Based on a class intake of 25 students/trainees

SPACE REQUIREMENT	SIZE IN METERS	AREA IN SQ. METERS	TOTAL AREA IN SQ. METERS
A. Building (permanent)			
Student/Trainee Working Space	2.00 x 2.00 per student/trainee	4.00 per student	100.00
Learning Resource Center		15.00	15.00
Facilities/Equipment/Circulation			39.30
Store Room	4.00 x 4.00	16.00	16.00

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

3.6 TRAINERS' QUALIFICATION FISHING GEAR REPAIR AND MAINTENANCE NC III

TRAINER QUALIFICATION (TQ III)

- Must be a holder of NC III
- Must have undergone training on Training Methodology III (TM III)
- Must be physically and mentally fit
- *Must have at least 2 years job/industry experience

* 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 their achievement of competencies. It is administered by the trainer/assessor at end of each learning module.

The result of the institutional assessment may be considered as an evidence for national assessment.

SECTION 4 NATIONAL ASSESSMENT AND CERTIFICATION ARRANGEMENTS

- 4.1. To attain the National Qualification of **FISHING GEAR REPAIR AND MAINTENANCE NC III**, the candidate must demonstrate competence in 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 FISHING GEAR REPAIR AND MAINTENANCE NC III may be attained through accumulation of Certificates of Competency (COCs) in the following areas:
 - 4.2.1. Supervise unloading and loading of net
 - 4.2.2. Evaluate, administer and monitor net mending
 - 4.2.2.1 Evaluate net mending
 - 4.2.2.2 Administer and monitor net mending

Note :

The possession of COC in the Unit of Competency - Assemble and Repair Damaged netting (AGR641303) is a prerequisite for taking the assessment in Evaluate, Administer and Monitor Net Mending

Successful candidates shall be awarded Certificates of Competency (COCs)
- 4.3. Upon 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:
 - 4.5.1 Graduates of formal, non-formal and informal including enterprise-based training programs.
 - 4.5.2. 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 FISHERY SECTOR

CORE UNITS OF COMPETENCY				
Supervise unloading and loading of net	Evaluate net mending	Administer and monitor net mending	Manage team of net menders	Supervise net repair and maintenance
Evaluate mended nets	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	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	

COMMON UNITS OF COMPETENCY

Apply safety measures in farm operations	Use farm tools and equipment	Perform estimation and calculation	Apply basic first aid
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BASIC UNITS OF COMPETENCY

Receive and Respond to Workplace Communication	Participate in Workplace Communication	Lead Workplace Communication	Use relevant technologies	Develop Team and Individual
Work With Others	Work in a Team Environment	Lead Small Team	Solve problems related to work activities	Apply Problem Solving Techniques in the Workplace
Practice basic housekeeping procedures	Demonstrate work values	Develop and practice negotiation skills	Use mathematical concepts and techniques	Plan and Organize Work

FISHING GEAR REPAIR AND MAINTENANCE NC III

DEFINITION OF TERMS

For the purpose of this standard, the word

- **Commercial fishing** – the taking of fishery species by passive or active gear for trade, business or profit beyond subsistence or sports fishing, to be further classified as:
 - **Small scale commercial fishing** – fishing with passive or active gear utilizing fishing vessels of 3.1 gross tons (GT) up to twenty (20) GT;
 - **Medium scale commercial fishing** – fishing utilizing active gears and vessels of 20.1 GT up to one hundred fifty (150) GT;
 - **Large scale commercial fishing** – fishing utilizing active gears and vessels of more than one hundred fifty (150) GT.
- **Deck** – a platform in a ship that is structural element and forming the floor for its compartment.
- **Fish gear plan** – a design that includes the structure and details of the materials of the fish net.
- **Fisherfolk** – people who directly and physically engaged in taking and/or culturing and processing fishery and/or aquatic resources.
- **Fishing vessel** – any boat, ship or other watercraft equipped to be used for taking fishery species or aiding or assisting one or more vessels in the performance of any activity relating to fishing, including, but not limited to, preservation, supply, storage, refrigeration, transportation and processing.
- **Fishing gear** – any instrument or device and its accessories utilized in taking fish and other fishery species.
- **Knot** – compact intersection of interlaced materials, as cord, ribbon or rope. A fastening made by tying together lengths of materials as rope in prescribed way.

- **Netting** – fishing gear component made of open meshed fabric.
- **Net mending** – net that must be repaired.
- **Power block** – a large hydraulic pulley used to bring the purse seine net aboard.
- **Purse seine net** - A fishing net used to encircle surface-dwelling fish, landed usually aboard a boat rather than beached.
- **Ring net** - a modified lampara net with purse rings operated by two vessels.

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