

# Part D

## Instructor's Guide

*Instruction: The Instructor's Guide (IG) also known as a lesson plan is developed by the instructor which serves as a road map of what the trainees need to learn and how it will be done effectively. The format below shall be used to ensure uniformity. However, the MTI is required to specify teaching and learning activities, and develop appropriate Instructional Materials suitable for the learning outcomes.*

<b>Course:</b> Management Level Course for Marine Engineer Officers (Function 4)	<b>Competence:</b> Control trim, stability and stress
	<b>Knowledge, Understanding and Proficiency:</b> Fundamental principles of ship construction and the theories and factors affecting trim and stability and measures necessary to preserve trim and stability
	<b>Topics:</b> <b>Course Introduction</b> 1. Fundamental principles of ship construction, and the theories and factors affecting trim and stability and measures necessary to preserve trim and stability
<b>No. of Trainees:</b> Twenty-Four (24)	<b>Learning Outcome/s:</b> At the end of the session, the trainees should be able to: Refer to Part C Course Syllabus for the Intended Learning Outcomes
<b>Class Layout:</b> Layout suitable for theoretical part	<b>Formative Assessment:</b> Written and Practical Test

Time	Phase	Content	Instructor-Led Activity	Student Learning Activity	Instructional Materials Used
1 hour	<b>Introduction</b>	<b>Course Introduction</b> <ul style="list-style-type: none"> <li>Requirements under Regulation III/2, Section A-III/2 Function 4 of the</li> </ul>	<ul style="list-style-type: none"> <li>Class orientation/briefing</li> <li>Lecture/Discussion or other</li> </ul>	Listening, note taking, inquiring, answering	<ul style="list-style-type: none"> <li>Visual presentation</li> <li>STCW Convention, 1978, as amended</li> </ul>

Time	Phase	Content	Instructor-Led Activity	Student Learning Activity	Instructional Materials Used
		<p>STCW Convention and Code</p> <ul style="list-style-type: none"> <li>Objectives of the course; and course requirements</li> <li>Expectation setting</li> </ul>	<p>teaching methods suitable for theoretical aspect</p> <ul style="list-style-type: none"> <li>Presentation of the ILOs or other activities to motivate the trainees</li> </ul>	<p>questions, interactive discussion</p>	
4 hours and 30 minutes	<b>Core Elements</b>	<p>Fundamental principles of ship construction, and the theories and factors affecting trim and stability and measures necessary to preserve trim and stability</p>	<p>The MTI is required to specify suitable activities for the delivery of the topics</p>	<p>The MTI is required to specify suitable learning activities</p>	<ul style="list-style-type: none"> <li>Visual presentation</li> <li>International Convention for the Safety of Life at Sea (SOLAS), as amended (Latest Edition)</li> <li>International Convention on Load Lines, 1966, as amended</li> </ul>
1 hour and 30 minutes	<b>Core Elements</b>	<p><b>Practical Exercise 1</b> Apply the appropriate measure to maintain the stability and stress conditions within safety limits at all times during operation</p>	<p><b>Practical Exercise 1</b> The MTI is required to specify suitable activities for the conduct of the practical exercise in applying the appropriate measure to maintain the stability and stress conditions within safety limits at all times</p>	<p><b>Practical Exercise 1</b> Participating in the practical exercise on applying the appropriate measure to maintain the stability and stress conditions within safety limits at all times during operation in a given scenario</p>	<p>Exercise Sheet A7.1</p>

Time	Phase	Content	Instructor-Led Activity	Student Learning Activity	Instructional Materials Used
			during operation in a given scenario		
30 minutes	<b>Conclusion</b>	Fundamental principles of ship construction, and the theories and factors affecting trim and stability and measures necessary to preserve trim and stability	<ul style="list-style-type: none"> <li>• Make generalization and abstraction of the lesson</li> <li>• Assess the learning which may come from any of the following:                             <ul style="list-style-type: none"> <li>- Formative test</li> <li>- Oral Examination</li> <li>- Assignment</li> </ul> </li> <li>• Other activities to check the retention of learning</li> </ul>	<ul style="list-style-type: none"> <li>• Participating, sharing insights and learning gained</li> <li>• Answering/asking questions</li> </ul>	Visual presentation

<b>Course:</b> Management Level Course for Marine Engineer Officers (Function 4)	<b>Competence:</b> Control trim, stability and stress
	<b>Knowledge Understanding and Proficiency:</b> The effect on trim and stability of a ship in the event of damage to, and consequent flooding of, a compartment and countermeasures to be taken
	<b>Topic:</b> 2. The effect on trim and stability of a ship in the event of damage to and consequent flooding of a compartment and countermeasures to be taken
<b>No. of Trainees:</b> Twenty-Four (24)	<b>Learning Outcome/s:</b> At the end of the session, the trainees should be able to: Refer to Part C Course Syllabus for the Intended Learning Outcomes
<b>Class Layout:</b> Layout suitable for theoretical part	<b>Formative Assessment:</b> Written and Practical Test

Time	Phase	Content	Instructor's Led-Activities	Trainees' Learning Activities	Instructional Materials used
15 mins	<b>Introduction</b>	<ul style="list-style-type: none"> <li>• Presentation of competence/KUPs</li> <li>• Intended learning Outcome</li> </ul>	<ul style="list-style-type: none"> <li>• Presentation of intended learning outcomes</li> <li>• Review of previous topics</li> </ul>	Listening, note taking, inquiring, answering questions, interactive discussion	Visual presentation
4 hours and 30 minutes	<b>Core Elements</b>	The effect on trim and stability of a ship in the event of damage to and consequent flooding of a compartment and countermeasures to be taken	The MTI is required to specify suitable activities for the delivery of the topic	The MTI is required to specify suitable learning activities	Visual presentation

Time	Phase	Content	Instructor's Led-Activities	Trainees' Learning Activities	Instructional Materials used
1 hour and 30 minutes	<b>Core Elements</b>	<p><b>Practical Exercise 2</b> Decide on the appropriate countermeasures to be taken taking into consideration the IMO recommendations about ships stability related to issues onboard</p>	<p><b>Practical Exercise 2</b> The MTI is required to specify suitable activities for the conduct of the practical exercise in deciding to maintain the trim stability of the ship taking into consideration the appropriate countermeasures in a given scenario (e.g. flooding and ship damage of a compartment)</p>	<p><b>Practical Exercise 2</b> Participating in the practical exercise on deciding to maintain the trim stability of the ship taking into consideration the appropriate countermeasures in a given scenario (e.g. flooding and ship damage of a compartment)</p>	Exercise Sheet No. A7.2
15 mins	<b>Conclusion</b>	The effect on trim and stability of a ship in the event of damage to and consequent flooding of a compartment and countermeasures to be taken	<ul style="list-style-type: none"> <li>• Make generalization and abstraction of the lesson</li> <li>• Assess the learning which may come from any of the following:               <ul style="list-style-type: none"> <li>- Formative test</li> <li>- Oral Examination</li> <li>- Assignment</li> </ul> </li> <li>• Other activities to check the retention of learning</li> </ul>	<ul style="list-style-type: none"> <li>• Participating, sharing insights and learning gained</li> <li>• Answering/asking questions</li> </ul>	Visual presentation

<b>Course:</b> Management Level Course for Marine Engineer Officers (Function 4)			<b>Competence:</b> Control trim, stability and stress		
			<b>Knowledge Understanding and Proficiency:</b> IMO recommendations concerning ship stability		
			<b>Topic:</b> 3. <b>IMO recommendations concerning ship stability</b>		
<b>No. of Trainees:</b> Twenty-Four (24)			<b>Learning Outcome/s:</b> At the end of the session, the trainees should be able to: Refer to Part C Course Syllabus for the Intended Learning Outcomes		
<b>Class Layout:</b> Layout suitable for theoretical part			<b>Formative Assessment:</b> Written and Practical Test		
Time	Phase	Content	Instructor's Led Activities	Trainees Learning Activities	Instructional Materials Used
5 minutes	<b>Introduction</b>	<ul style="list-style-type: none"> <li>• Presentation of competence/KUPs</li> <li>• Intended learning Outcome</li> </ul>	<ul style="list-style-type: none"> <li>• Presentation intended learning outcomes</li> <li>• Review of previous topics</li> </ul>	Listening, note taking, inquiring, answering questions, interactive discussion	Visual presentation
50 minutes	<b>Core Elements</b>	IMO recommendations concerning ship stability	The MTI is required to specify suitable activities for the delivery of the topic	The MTI is required to specify suitable learning activities	<ul style="list-style-type: none"> <li>• Visual presentation</li> <li>• Load Lines Convention 1966</li> <li>• Intact Stability Code</li> </ul>
1 hour	<b>Core Elements</b>	<b>Practical Exercise 3</b> Use IMO recommendations about ships stability related to issues onboard	<b>Practical Exercise 3</b> The MTI is required to specify suitable activities for the conduct of the practical exercise in using IMO recommendations about ships stability	<b>Practical Exercise 3</b> Participating in the practical exercise on using IMO recommendations about ships stability related to issues onboard	Exercise Sheet No. A7.3

Time	Phase	Content	Instructor's Led Activities	Trainees Learning Activities	Instructional Materials Used
			related to issues onboard		
5 minutes	<b>Conclusion</b>	IMO recommendations concerning ship stability	<ul style="list-style-type: none"> <li>• Make generalization and abstraction of the lesson</li> <li>• Assess the learning which may come from any of the following:                             <ul style="list-style-type: none"> <li>- Formative test</li> <li>- Oral Examination</li> <li>- Assignment</li> </ul> </li> <li>• Other activities to check the retention of learning</li> </ul>	<ul style="list-style-type: none"> <li>• Participating, sharing insights and learning gained</li> <li>• Answering/asking questions</li> </ul>	Visual presentation

<b>Course:</b> Management Level Course for Marine Engineer Officers (Function 4)	<b>Competence:</b> Monitor and control compliance with legislative requirements and measures to ensure safety of life at sea, security and protection of the marine environment
	<b>Knowledge, Understanding and Proficiency:</b> Relevant international maritime law embodied in international agreements and conventions
	<b>Topic:</b> <b>4.1.</b> Certificates and other documents required to be carried on board ships by international conventions, how they may be obtained and their period of validity
<b>No. of Trainees:</b> Twenty-Four (24)	<b>Learning Outcome/s:</b> At the end of the session, the trainees should be able to: Refer to Part C Course Syllabus for the Intended Learning Outcomes
<b>Class Layout:</b> Layout suitable for theoretical part	<b>Formative Assessment:</b> Written and Practical Test

Time	Phase	Content	Instructor-Led Activity	Student Learning Activity	Instructional Materials Used
15 minutes	<b>Introduction</b>	<ul style="list-style-type: none"> <li>• Presentation of competence/KUPs</li> <li>• Intended learning Outcome</li> </ul>	<ul style="list-style-type: none"> <li>• Presentation of intended learning outcomes</li> <li>• Review of previous topics</li> </ul>	Listening, note taking, inquiring, answering questions, interactive discussion	Visual presentation
5 hours and 30 minutes	<b>Core Elements</b>	Certificates and other documents required to be carried on board ships by international conventions, how they may be obtained and their period of validity	The MTI is required to specify suitable activities for the delivery of the topics	The MTI is required to specify suitable learning activities	<ul style="list-style-type: none"> <li>• Visual presentation</li> <li>• SOLAS Convention</li> <li>• MARPOL Convention</li> <li>• Load Line Convention</li> <li>• Maritime Labor Convention</li> </ul>



<p>2 hours</p>	<p><b>Core Elements</b></p>	<p><b>Practical Exercise 4</b> Monitor the validity of certificates of surveyed items and equipment</p>	<p><b>Practical exercise 4</b> The MTI is required to specify suitable activities for the conduct of the practical exercise in:</p> <ul style="list-style-type: none"> <li>• analyzing potential non-compliance with the IMO conventions and legislative requirements in a given scenario.</li> <li>• monitoring the validity of certificates of surveyed items and equipment in a given scenario.</li> </ul>	<p><b>Practical Exercise 4</b> Participating in the practical exercise on:</p> <ul style="list-style-type: none"> <li>• analyzing potential non-compliance with the IMO conventions and legislative requirements in a given scenario.</li> <li>• monitoring the validity of certificates of surveyed items and equipment in a given scenario.</li> </ul>	<p>Exercise Sheet No. A7.4</p>
<p>15 mins</p>	<p><b>Conclusion</b></p>	<p>Certificates and other documents required to be carried on board ships by international conventions, how they may be obtained and their period of validity</p>	<ul style="list-style-type: none"> <li>• Make generalization and abstraction about the lesson</li> <li>• Assess the learning which may come from any of the following:             <ul style="list-style-type: none"> <li>- Formative test</li> <li>- Oral Examination</li> <li>- Assignment</li> </ul> </li> <li>• Other activities to check the retention of learning</li> </ul>	<ul style="list-style-type: none"> <li>• Participating, sharing insights and learning gained</li> <li>• Answering/asking questions</li> </ul>	<p>Visual Presentation</p>

<b>Course:</b> Management Level Course for Marine Engineer Officers (Function 4)	<b>Competence:</b> Monitor and control compliance with legislative requirements and measures to ensure safety of life at sea, security and protection of the marine environment
	<b>Knowledge, Understanding and Proficiency:</b> Relevant international maritime law embodied in international agreements and conventions
	<b>Topic:</b> 4.2. Responsibilities under International Conventions and instruments
<b>No. of Trainees:</b> Twenty-Four (24)	<b>Learning Outcome/s:</b> At the end of the session, the trainees should be able to: Refer to Part C Course Syllabus for the Intended Learning Outcomes
<b>Class Layout:</b> Layout suitable for theoretical part	<b>Formative Assessment:</b> Written and Practical Test

Time	Phase	Content	Instructor-Led Activity	Student Learning Activity	Instructional Materials Used
15 minutes	<b>Introduction</b>	<ul style="list-style-type: none"> <li>• Presentation of competence/KUPs</li> <li>• Intended learning Outcome</li> </ul>	<ul style="list-style-type: none"> <li>• Presentation intended learning outcomes</li> <li>• Review of previous topics</li> </ul>	Listening, note taking, inquiring, answering questions, interactive discussion	Visual presentation
4 hours and 30 minutes	<b>Core Elements</b>	Responsibilities under International Conventions and instruments	The MTI is required to specify suitable activities for the delivery of the topics	The MTI is required to specify suitable learning activities	<ul style="list-style-type: none"> <li>• Visual presentation</li> <li>• International Convention on Load Lines, 1966, as amended;</li> <li>• International Convention for the Safety of Life at Sea, 1974, as amended;</li> </ul>

Time	Phase	Content	Instructor-Led Activity	Student Learning Activity	Instructional Materials Used
					<ul style="list-style-type: none"> <li>• International Convention for the Prevention of Pollution from Ships, as amended;</li> <li>• International Health Regulations; and</li> <li>• International instruments affecting the safety of the ship, passengers, crew and cargo</li> </ul>
1 hour 30 mins	<b>Core Elements</b>	<p><b>Practical Exercise 5</b> Monitor the compliance with the requirements and responsibilities with the following international agreements, conventions and instruments:</p> <ul style="list-style-type: none"> <li>- International Convention on Load Lines, 1966, as amended;</li> <li>- International Convention for the Safety of Life at Sea, 1974, as amended;</li> <li>- International Convention for the Prevention of Pollution from Ships, as amended;</li> <li>- International Health Regulations; and</li> </ul>	<p><b>Practical Exercise 5</b> The MTI is required to specify suitable activities for the conduct of the practical exercise in monitoring the compliance with the requirements and responsibilities with the following international agreements, conventions and instruments:</p> <ul style="list-style-type: none"> <li>- International Convention on Load Lines, 1966, as amended;</li> </ul>	<p><b>Practical Exercise 5</b> Participating in the practical exercise on monitoring the compliance with the requirements and responsibilities with the following international agreements, conventions and instruments:</p> <ul style="list-style-type: none"> <li>- International Convention on Load Lines, 1966, as amended;</li> <li>- International Convention for the Safety of Life at Sea, 1974, as amended;</li> </ul>	Exercise Sheet No. A7.5

Time	Phase	Content	Instructor-Led Activity	Student Learning Activity	Instructional Materials Used
		International instruments affecting the safety of the ship, passengers, crew and cargo	<ul style="list-style-type: none"> <li>- International Convention for the Safety of Life at Sea, 1974, as amended;</li> <li>- International Convention for the Prevention of Pollution from Ships, as amended;</li> <li>- International Health Regulations; and</li> <li>- International instruments affecting the safety of the ship, passengers, crew and cargo</li> </ul>	<ul style="list-style-type: none"> <li>- International Convention for the Prevention of Pollution from Ships, as amended;</li> <li>- International Health Regulations; and</li> <li>- International instruments affecting the safety of the ship, passengers, crew and cargo</li> </ul>	
15 minutes	<b>Conclusion</b>	Responsibilities under International Conventions and instruments	<ul style="list-style-type: none"> <li>• Make generalization and abstraction of the lesson</li> <li>• Assess the learning which may come from any of the following:                             <ul style="list-style-type: none"> <li>- Formative test</li> <li>- Oral Examination</li> <li>- Assignment</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Participating, sharing insights and learning gained</li> <li>• Answering/asking questions</li> </ul>	Visual Presentation

Time	Phase	Content	Instructor-Led Activity	Student Learning Activity	Instructional Materials Used
			<ul style="list-style-type: none"><li>• Other activities to check the retention of learning</li></ul>		

<b>Course:</b> Management Level Course for Marine Engineer Officers (Function 4)	<b>Competence:</b> Monitor and control compliance with legislative requirements and measures to ensure safety of life at sea, security and protection of the marine environment
	<b>Knowledge, Understanding and Proficiency:</b> Relevant international maritime law embodied in international agreements and conventions
	<b>Topic:</b> <b>4.3.</b> Methods and aids to prevent pollution of the environment by ships
<b>No. of Trainees:</b> Twenty-Four (24)	<b>Learning Outcome/s:</b> At the end of the session, the trainees should be able to: Refer to Part C Course Syllabus for the Intended Learning Outcomes
<b>Class Layout:</b> Layout suitable for theoretical part	<b>Formative Assessment:</b> Written and Practical Test

Time	Phase	Content	Instructor-Led Activity	Student Learning Activity	Instructional Materials Used
15 minutes	<b>Introduction</b>	<ul style="list-style-type: none"> <li>• Presentation of competence/KUPs</li> <li>• Intended learning Outcome</li> </ul>	<ul style="list-style-type: none"> <li>• Presentation intended learning outcomes</li> <li>• Review of previous topics</li> </ul>	Listening, note taking, inquiring, answering questions, interactive discussion	Visual presentation
3 hours and 30 minutes	<b>Core Elements</b>	Methods and aids to prevent pollution of the environment by ships	The MTI is required to specify suitable activities for the delivery of the topic	The MTI is required to specify suitable learning activities	<ul style="list-style-type: none"> <li>• Visual presentation</li> <li>• Shipboard Oil Prevention Emergency Manual</li> <li>• MARPOL</li> </ul>
1 hour and 30 minutes	<b>Core Elements</b>	<b>Practical Exercise 6</b> Applying the methods and aids to prevent pollution of the marine environment by ships	<b>Practical Exercise 6</b> The MTI is required to specify suitable activities for the conduct of the practical exercise in applying the methods and aids to prevent pollution of the marine	<b>Practical Exercise 6</b> Participating in the table-top case study on applying the methods and aids to prevent pollution of the environment by ships in a given scenario.	Exercise Sheet No. A7.6

Time	Phase	Content	Instructor-Led Activity	Student Learning Activity	Instructional Materials Used
			environment by ships in a given scenario.		
15 minutes	<b>Conclusion</b>	Methods and aids to prevent pollution of the environment by ships	<ul style="list-style-type: none"> <li>• Make generalization and abstraction of the lesson</li> <li>• Assess the learning which may come from any of the following:               <ul style="list-style-type: none"> <li>- Formative test</li> <li>- Oral Examination</li> <li>- Assignment</li> </ul> </li> <li>• Other activities to check the retention of learning</li> </ul>	<ul style="list-style-type: none"> <li>• Participating, sharing insights and learning gained</li> <li>• Answering/asking questions</li> </ul>	Visual Presentation

<b>Course:</b> Management Level Course for Marine Engineer Officers (Function 4)	<b>Competence:</b> Monitor and control compliance with legislative requirements and measures to ensure safety of life at sea, security and protection of the marine environment
	<b>Knowledge, Understanding and Proficiency:</b> Relevant international maritime law embodied in international agreements and conventions
	<b>Topic:</b> 4.4. Knowledge of national legislation for implementing international agreements and conventions
<b>No. of Trainees:</b> Twenty-Four (24)	<b>Learning Outcome/s:</b> At the end of the session, the trainees should be able to: Refer to Part C Course Syllabus for the Intended Learning Outcomes
<b>Class Layout:</b> Layout suitable for theoretical part	<b>Formative Assessment:</b> Written and Practical Test

Time	Phase	Content	Instructor-Led Activity	Student Learning Activity	Instructional Materials Used
10 minutes	<b>Introduction</b>	<ul style="list-style-type: none"> <li>• Presentation of competence/KUPs</li> <li>• Intended learning Outcome</li> </ul>	<ul style="list-style-type: none"> <li>• Presentation intended learning outcomes</li> <li>• Review of previous topics</li> </ul>	Listening, note taking, inquiring, answering questions, interactive discussion	Visual presentation
2 hours and 40 mins	<b>Core Elements</b>	National legislation for implementing international agreements and conventions	The MTI is required to specify suitable activities for the delivery of the topic	The MTI is required to specify suitable learning activities	Visual presentation
10 minutes	<b>Conclusion</b>	National legislation for implementing international agreements and conventions	<ul style="list-style-type: none"> <li>• Make generalization and abstraction of the lesson</li> <li>• Assess the learning which may come from any of the following:                             <ul style="list-style-type: none"> <li>- Formative test</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Participating, sharing insights and learning gained</li> <li>• Answering/asking questions</li> </ul>	Visual Presentation



Time	Phase	Content	Instructor-Led Activity	Student Learning Activity	Instructional Materials Used
			<ul style="list-style-type: none"><li>- Oral Examination</li><li>- Assignment</li><li>• Other activities to check the retention of learning</li></ul>		

<b>Course:</b> Management Level Course for Marine Engineer Officers (Function 4)		<b>Competence: Develop emergency and damage control plans and handle emergency situations</b>			
		<b>Knowledge, Understanding and Proficiency:</b> Ship construction, including damage control			
		<b>Topic:</b> 4. Ship construction, including damage control			
<b>No. of Trainees:</b> Twenty-Four (24)		<b>Intended Learning Outcome:</b> At the end of the session, the trainees should be able to: Refer to Part C Course Syllabus for the Intended Learning Outcomes			
<b>Class Layout:</b> Layout suitable for theoretical part		<b>Formative Assessment:</b> Written and Practical Test			
Time	Phase	Content	Instructor-Led Activity	Student-Learning Activity	Instructional Materials Used
5 minutes	<b>Introduction</b>	<ul style="list-style-type: none"> <li>• Presentation of competence/KUPs</li> <li>• Intended learning Outcome</li> </ul>	<ul style="list-style-type: none"> <li>• Presentation intended learning outcomes</li> <li>• Review of previous topics</li> </ul>	Listening, note taking, inquiring, answering questions, interactive discussion	Visual presentation
50 minutes	<b>Core Elements</b>	Ship construction, including damage control	The MTI is required to specify suitable activities for the delivery of the topic	The MTI is required to specify suitable learning activities	<ul style="list-style-type: none"> <li>• Visual presentation</li> <li>• Emergency and damage control plan</li> </ul>
5 hours	<b>Core Elements</b>	<b>Practical Exercises 7 and 8</b> <ul style="list-style-type: none"> <li>• Develop an emergency and damage control plans based on the results of the evaluation</li> <li>• Evaluate the effectiveness of the</li> </ul>	<b>Practical Exercises 7 and 8</b> The MTI is required to specify suitable activities for the conduct of the following practical exercises in:	<b>Practical Exercise 7 and 8</b> Participating in the following practical exercises on: <ul style="list-style-type: none"> <li>• developing an emergency and damage control</li> </ul>	Exercise Sheet No. A8.7 and A8.8

Time	Phase	Content	Instructor-Led Activity	Student-Learning Activity	Instructional Materials Used
		<p>methods for fire prevention, detection, and extinction in accordance with emergency procedures on board</p>	<ul style="list-style-type: none"> <li>• developing an emergency and damage control plans based on the results of the evaluation</li> <li>• evaluating the effectiveness of the methods for fire prevention, detection, and extinction in accordance with emergency procedures on board</li> </ul>	<p>plans based on the results of the evaluation</p> <ul style="list-style-type: none"> <li>• evaluating the effectiveness of the methods for fire prevention, detection, and extinction in accordance with emergency procedures on board</li> </ul>	
<p>5 minutes</p>	<p><b>Conclusion</b></p>	<p>Ship construction, including damage control</p>	<ul style="list-style-type: none"> <li>• Make generalization and abstraction of the lesson</li> <li>• Assess the learning which may come from any of the following:                             <ul style="list-style-type: none"> <li>- Formative test</li> <li>- Oral Examination</li> <li>- Assignment</li> </ul> </li> <li>• Other activities to check the retention of learning</li> </ul>	<ul style="list-style-type: none"> <li>• Participating, sharing insights and learning gained</li> <li>• Answering/asking questions</li> </ul>	<p>Visual Presentation</p>

<b>Course:</b> Management Level Course for Marine Engineer Officers (Function 4)		<b>Competence:</b> Develop emergency and damage control plans and handle emergency situations			
		<b>Knowledge, Understanding and Proficiency:</b> Methods and aids for fire prevention, detection and extinction			
		<b>Topic:</b> 5. Methods and aids for fire prevention, detection and extinction			
<b>No. of Trainees:</b> Twenty-Four (24)		<b>Learning Outcome/s:</b> At the end of the session, the trainees should be able to: Refer to Part C Course Syllabus for the Intended Learning Outcomes			
<b>Class Layout:</b> Layout suitable for theoretical part		<b>Formative Assessment:</b> Written and Practical Test			
Time	Phase	Content	Instructor-Led Activity	Student Learning Activity	Instructional Materials Used
5 minutes	<b>Introduction</b>	<ul style="list-style-type: none"> <li>• Presentation of competence/KUPs</li> <li>• Intended learning Outcome</li> </ul>	<ul style="list-style-type: none"> <li>• Presentation intended learning outcomes</li> <li>• Review of previous topics</li> </ul>	Listening, note taking, inquiring, answering questions, interactive discussion	Visual presentation
20 minutes	<b>Core Elements</b>	Methods and aids for fire prevention, detection and extinction	The MTI is required to specify suitable activities for the delivery of the topic	The MTI is required to specify suitable learning activities	<ul style="list-style-type: none"> <li>• Visual presentation</li> <li>• SOLAS</li> <li>• SMS (checklist for monitoring of LSA)</li> </ul>
1 hour	<b>Core Elements</b>	<b>Practical Exercise 9</b> Evaluate the effectiveness of the methods for fire prevention, detection, and extinction in accordance with emergency procedures on board	<b>Practical Exercise 9</b> The MTI is required to specify suitable activities for the conduct of the practical exercise in evaluating the effectiveness of the methods for fire prevention, detection,	<b>Practical Exercise 9</b> Participating in the practical exercise in evaluating the effectiveness of the methods for fire prevention, detection, and extinction in	Exercise Sheet No. A7.9

Time	Phase	Content	Instructor-Led Activity	Student Learning Activity	Instructional Materials Used
			and extinction in accordance with emergency procedures on board	accordance with emergency procedures on board	
5 minutes	<b>Conclusion</b>	Methods and aids for fire prevention, detection and extinction	<ul style="list-style-type: none"> <li>• Make generalization and abstraction of the lesson</li> <li>• Assess the learning which may come from any of the following:                             <ul style="list-style-type: none"> <li>- Formative test</li> <li>- Oral Examination</li> <li>- Assignment</li> </ul> </li> <li>• Other activities to check the retention of learning</li> </ul>	<ul style="list-style-type: none"> <li>• Participating, sharing insights and learning gained</li> <li>• Answering/asking questions</li> </ul>	Visual Presentation

<b>Course:</b> Management Level Course for Marine Engineer Officers (Function 4)			<b>Competence:</b> Develop emergency and damage control plans and handle emergency situations		
			<b>Knowledge, Understanding and Proficiency:</b> Functions and use of life-saving appliances		
			<b>Topic:</b> 7. Functions and use of life-saving appliances		
<b>No. of Trainees:</b> Twenty-Four (24)			<b>Learning Outcome/s:</b> At the end of the session, the trainees should be able to: Refer to Part C Course Syllabus for the Intended Learning Outcomes		
<b>Class Layout:</b> Layout suitable for theoretical part			<b>Formative Assessment:</b> Written and Practical Test		
Time	Phase	Content	Instructor-Led Activity	Student Learning Activity	Instructional Materials Used
5 mins	<b>Introduction</b>	<ul style="list-style-type: none"> <li>• Presentation of competence/KUPs</li> <li>• Intended learning Outcome</li> </ul>	<ul style="list-style-type: none"> <li>• Presentation intended learning outcomes</li> <li>• Review of previous topics</li> </ul>	Listening, note taking, inquiring, answering questions, interactive discussion	Visual presentation
20 mins	<b>Core Elements</b>	Functions and use of life-saving appliances	The MTI is required to specify suitable activities for the delivery of the topic	The MTI is required to specify suitable learning activities	<ul style="list-style-type: none"> <li>• Visual presentation</li> <li>• SOLAS</li> <li>• SMS (checklist for monitoring of LSA)</li> </ul>
1 hour	<b>Core Elements</b>	<b>Practical Exercise 10</b> Evaluate the effectiveness of the functions and proper use of life-saving appliances on board a ship in accordance with emergency procedures on board	<b>Practical Exercise 10</b> The MTI is required to specify suitable activities for the conduct of the practical exercise in evaluating the effectiveness of the functions and proper	<b>Practical Exercise 10</b> Participating in the practical exercise in evaluating the effectiveness of the functions and proper use of life-saving appliances on board a	Exercise Sheet No. A7.10

Time	Phase	Content	Instructor-Led Activity	Student Learning Activity	Instructional Materials Used
			use of life-saving appliances on board a ship in accordance with emergency procedures on board	ship in accordance with emergency procedures on board	
5 minutes	<b>Conclusion</b>	Methods and aids for fire prevention, detection and extinction	<ul style="list-style-type: none"> <li>• Make generalization and abstraction of the lesson</li> <li>• Assess the learning which may come from any of the following:               <ul style="list-style-type: none"> <li>- Formative test</li> <li>- Oral Examination</li> <li>- Assignment</li> </ul> </li> <li>• Other activities to check the retention of learning</li> </ul>	<ul style="list-style-type: none"> <li>• Participating, sharing insights and learning gained</li> <li>• Answering/asking questions</li> </ul>	Visual Presentation

<b>Course:</b> Management Level Course for Marine Engineer Officers (Function 4)	<b>Competence:</b> Maintain safety and security of the vessel, crew and passengers and the operational condition of life-saving, fire-fighting and other safety systems
	<b>Knowledge, Understanding and Proficiency:</b> Life-saving appliance regulations (International Convention for the Safety of Life at Sea)
	<b>Topic:</b> 8. Life-saving appliance regulations (International Convention for the Safety of Life at Sea)
<b>No. of Trainees:</b> Twenty-Four (24)	<b>Learning Outcome/s:</b> At the end of the session, the trainees should be able to: Refer to Part C Course Syllabus for the Intended Learning Outcomes
<b>Class Layout:</b> Layout suitable for theoretical part	<b>Formative Assessment:</b> Written and Practical Test

Time	Phase	Content	Instructor-Led Activity	Student Learning Activity	Instructional Materials Used
15 mins	<b>Introduction</b>	<ul style="list-style-type: none"> <li>• Presentation of competence/KUPs</li> <li>• Intended learning Outcome</li> </ul>	<ul style="list-style-type: none"> <li>• Presentation intended learning outcomes</li> <li>• Review of previous topics</li> </ul>	Listening, note taking, inquiring, answering questions, interactive discussion	Visual presentation
2 hours and 15 mins	<b>Core Elements</b>	Life-saving appliance regulations (International Convention for the Safety of Life at Sea)	The MTI is required to specify suitable activities for the delivery of the topic	The MTI is required to specify suitable learning activities	<ul style="list-style-type: none"> <li>• Visual presentation</li> <li>• SOLAS</li> <li>• SMS (checklist for monitoring of LSA)</li> </ul>
15 mins	<b>Conclusion</b>	Life-saving appliance regulations (International Convention for the Safety of Life at Sea)	<ul style="list-style-type: none"> <li>• Make generalization and abstraction of the lesson</li> <li>• Assess the learning which may come</li> </ul>	<ul style="list-style-type: none"> <li>• Participating, sharing insights and learning gained</li> <li>• Answering/asking questions</li> </ul>	Visual Presentation



Time	Phase	Content	Instructor-Led Activity	Student Learning Activity	Instructional Materials Used
			from any of the following: <ul style="list-style-type: none"> <li>- Formative test</li> <li>- Oral Examination</li> <li>- Assignment</li> <li>• Other activities to check the retention of learning</li> </ul>		

<b>Course:</b> Management Level Course for Marine Engineer Officers (Function 4)	<b>Competence:</b> Maintain safety and security of the vessel, crew and passengers and the operational condition of life-saving, fire-fighting and other safety systems
	<b>Knowledge, Understanding and Proficiency:</b> Maintenance of operational condition of life-saving, fire-fighting and other safety systems
	<b>Topic:</b> 9. Maintenance of operational condition of life-saving, fire-fighting and other safety systems
<b>No. of Trainees:</b> Twenty-Four (24)	<b>Learning Outcome/s:</b> At the end of the session, the trainees should be able to: Refer to Part C Course Syllabus for the Intended Learning Outcomes
<b>Class Layout:</b> Layout suitable for theoretical part	<b>Formative Assessment:</b> Written and Practical Test

Time	Phase	Content	Instructor-Led Activity	Student Learning Activity	Instructional Materials Used
15 minutes	<b>Introduction</b>	<ul style="list-style-type: none"> <li>• Presentation of competence/KUPs</li> <li>• Intended learning Outcome</li> </ul>	<ul style="list-style-type: none"> <li>• Presentation intended learning outcomes</li> <li>• Review of previous topics</li> </ul>	Listening, note taking, inquiring, answering questions, interactive discussion	Visual presentation
1 hour	<b>Core Elements</b>	Maintenance of operational condition of life-saving, fire-fighting and other safety systems	The MTI is required to specify suitable activities for the delivery of the topic	The MTI is required to specify suitable learning activities	<ul style="list-style-type: none"> <li>• Visual presentation</li> <li>• SMS (PMS)</li> </ul>
2 hours and 30 minutes	<b>Core Elements</b>	<b>Practical Exercise 11</b> Supervise the conduct of a planned testing and maintenance of life-saving appliances, fire detection, alarms, fire-fighting and other safety systems	<b>Practical Exercise 11</b> The MTI is required to specify suitable activities for the conduct of the practical exercise in supervising the conduct of a planned testing and	<b>Practical Exercise 11</b> Participating in the practical exercises on supervising the conduct of a planned testing and maintenance of life-	Exercise Sheet No.7.11

Time	Phase	Content	Instructor-Led Activity	Student Learning Activity	Instructional Materials Used
			maintenance of life-saving appliances, fire detection, alarms, fire-fighting and other safety systems in accordance with the Planned Maintenance Systems (PMS).	saving appliances, fire detection, alarms, fire-fighting and other safety systems in accordance with the Planned Maintenance Systems (PMS).	
15 minutes	<b>Conclusion</b>	Maintenance of operational condition of life-saving, fire-fighting and other safety systems	<ul style="list-style-type: none"> <li>• Make generalization and abstraction of the lesson</li> <li>• Assess the learning which may come from any of the following:                             <ul style="list-style-type: none"> <li>- Formative test</li> <li>- Oral Examination</li> <li>- Assignment</li> </ul> </li> <li>• Other activities to check the retention of learning</li> </ul>	<ul style="list-style-type: none"> <li>• Participating, sharing insights and learning gained</li> <li>• Answering/asking questions</li> </ul>	Visual Presentation

<b>Course:</b> Management Level Course for Marine Engineer Officers (Function 4)		<b>Competence:</b> Maintain safety and security of the vessel, crew and passengers and the operational condition of life-saving, fire-fighting and other safety systems			
		<b>Knowledge, Understanding and Proficiency:</b> Organization of fire drills and abandon ship drills			
		<b>Topic:</b> 10. Organization of fire drills and abandon ship drills			
<b>No. of Trainees:</b> Twenty-Four (24)		<b>Learning Outcome/s:</b> At the end of the session, the trainees should be able to: Refer to Part C Course Syllabus for the Intended Learning Outcomes			
<b>Class Layout:</b> Layout suitable for theoretical part		<b>Formative Assessment:</b> Written and Practical Test			
Time	Phase	Content	Instructor-Led Activity	Student Learning Activity	Instructional Materials Used
15 mins	<b>Introduction</b>	<ul style="list-style-type: none"> <li>• Presentation of competence/KUP</li> <li>• Intended learning Outcome</li> </ul>	<ul style="list-style-type: none"> <li>• Presentation intended learning outcomes</li> <li>• Review of previous topics</li> </ul>	Listening, note taking, inquiring, answering questions, interactive discussion	Visual presentation
1 hour	<b>Core Elements</b>	Organization of fire drills and abandon ship drills	The MTI is required to specify suitable activities for the delivery of the topic	The MTI is required to specify suitable learning activities	<ul style="list-style-type: none"> <li>• Shipboard fire-fighting organization</li> <li>• Muster List</li> <li>• Fire Control Plan</li> </ul>

Time	Phase	Content	Instructor-Led Activity	Student Learning Activity	Instructional Materials Used
2 hours and 30 mins	<b>Core Elements</b>	<b>Practical Exercise 12</b> Plan fire and abandon ship drills	<b>Practical Exercise 12</b> The MTI is required to specify suitable activities for the conduct of the practical exercise in planning the fire and abandon ship drills in accordance with established emergency procedures, in a given scenario.	<b>Practical Exercise 12</b> Participating in the practical exercise on planning the fire and abandon ship drills in accordance with established emergency procedures, in a given scenario.	Exercise Sheet No A7.12
15 mins	<b>Conclusion</b>	Organization of fire drills and abandon ship drills	<ul style="list-style-type: none"> <li>• Make generalization and abstraction of the lesson</li> <li>• Assess the learning which may come from any of the following:                             <ul style="list-style-type: none"> <li>- Formative test</li> <li>- Oral Examination</li> <li>- Assignment</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Participating, sharing insights and learning gained</li> <li>• Answering/asking questions</li> </ul>	Visual Presentation

<b>Course:</b> Management Level Course for Marine Engineer Officers (Function 4)	<b>Competence:</b> Maintain safety and security of the vessel, crew and passengers and the operational condition of life-saving, fire-fighting and other safety systems
	<b>Knowledge, Understanding and Proficiency:</b> Actions to be taken to protect and safeguard all persons on board in emergencies
	<b>Topic:</b> 11. Actions to be taken to protect and safeguard all persons on board in emergencies
<b>No. of Trainees:</b> Twenty-Four (24)	<b>Learning Outcome/s:</b> At the end of the session, the trainees should be able to: Refer to Part C Course Syllabus for the Intended Learning Outcomes
<b>Class Lay-out:</b> Layout suitable for theoretical part	<b>Formative Assessment:</b> Written and Practical Test

Time	Phase	Content	Instructor-Led Activity	Student-Learning Activity	Instructional Materials Used
15 minutes	<b>Introduction</b>	<ul style="list-style-type: none"> <li>• Presentation of competence/KUPs</li> <li>• Intended learning Outcome</li> </ul>	<ul style="list-style-type: none"> <li>• Presentation intended learning outcomes</li> <li>• Review of previous topics</li> </ul>	Listening, note taking, inquiring, answering questions, interactive discussion	Visual presentation
2 hours	<b>Core Elements</b>	Actions to be taken to protect and safeguard all persons on board in emergencies	The MTI is required to specify suitable activities for the delivery of the topic	The MTI is required to specify suitable learning activities	<ul style="list-style-type: none"> <li>• Visual presentation</li> <li>• Shipboard</li> <li>• contingency plan</li> </ul>
1 hour and 30 minutes	<b>Core Elements</b>	<b>Practical Exercise 13</b> Apply appropriate measures to be taken based on the prepared contingency plan	<b>Practical Exercise 13</b> The MTI is required to specify suitable activities for the conduct of the practical exercise in applying the	<b>Practical Exercise 13</b> Participating in the practical exercises on applying the appropriate measures to be taken based on the prepared	Exercise Sheet No.7.13

Time	Phase	Content	Instructor-Led Activity	Student-Learning Activity	Instructional Materials Used
			appropriate measures to be taken based on the prepared contingency plan in a given scenario.	contingency plan in a given scenario.	
15 minutes	<b>Conclusion</b>	Actions to be taken to protect and safeguard all persons on board in emergencies	<ul style="list-style-type: none"> <li>• Make generalization and abstraction of the lesson</li> <li>• Assess the learning which may come from any of the following:                             <ul style="list-style-type: none"> <li>- Formative test</li> <li>- Oral Examination</li> <li>- Assignment</li> </ul> </li> <li>• Other activities to check the retention of learning</li> </ul>	<ul style="list-style-type: none"> <li>• Participating, sharing insights and learning gained</li> <li>• Answering/asking questions</li> </ul>	Visual Presentation

<b>Course:</b> Management Level Course for Marine Engineer Officers (Function 4)	<b>Competence:</b> Maintain safety and security of the vessel, crew and passengers and the operational condition of life-saving, fire-fighting and other safety systems
	<b>Knowledge, Understanding and Proficiency:</b> Actions to limit damage and salve the ship following fire, explosion, collision or grounding
	<b>Topic:</b> 12. Actions to limit damage and salve the ship following fire, explosion, collision or grounding
<b>No. of Trainees:</b> Twenty-Four (24)	<b>Learning Outcome/s:</b> At the end of the session, the trainees should be able to: Refer to Part C Course Syllabus for the Intended Learning Outcomes
<b>Class Lay-out:</b> Layout suitable for theoretical part	<b>Formative Assessment:</b> Written and Practical Test

Time	Phase	Content	Instructor-Led Activity	Student-Learning Activity	Instructional Materials Used
5 mins	<b>Introduction</b>	<ul style="list-style-type: none"> <li>• Presentation of competence/KUPs</li> <li>• Intended learning Outcome</li> </ul>	<ul style="list-style-type: none"> <li>• Presentation intended learning outcomes</li> <li>• Review of previous topics</li> </ul>	Listening, note taking, inquiring, answering questions, interactive discussion	Visual presentation
1 hours and 20 minutes	<b>Core Elements</b>	Actions to limit damage and salve the ship following fire, explosion, collision or grounding	The MTI is required to specify suitable activities for the delivery of the topic	The MTI is required to specify suitable learning activities	<ul style="list-style-type: none"> <li>• Visual presentation</li> <li>• Shipboard Contingency plan</li> </ul>
3 hours	<b>Core Elements</b>	<b>Practical Exercise 14</b> Apply appropriate measures to be taken to limit damage and salve the ship	<b>Practical Exercise 14</b> The MTI is required to specify suitable activities for the conduct of the practical exercise in	<b>Practical Exercise 14</b> Participating in the practical exercises on applying the appropriate established procedures to be taken to limit damage	Exercise Sheet No.7.14



Time	Phase	Content	Instructor-Led Activity	Student-Learning Activity	Instructional Materials Used
			applying the appropriate established procedures to be taken to limit damage and save the ship following a fire, explosion, collision or grounding.	and save the ship following a fire, explosion, collision or grounding.	
5 minutes	<b>Conclusion</b>	Actions to limit damage and save the ship following fire, explosion, collision or grounding	<ul style="list-style-type: none"> <li>• Make generalization and abstraction of the lesson</li> <li>• Assess the learning which may come from any of the following:                             <ul style="list-style-type: none"> <li>- Formative test</li> <li>- Oral Examination</li> <li>- Assignment</li> </ul> </li> <li>• Other activities to check the retention of learning</li> </ul>	<ul style="list-style-type: none"> <li>• Participating, sharing insights and learning gained</li> <li>• Answering/asking questions</li> </ul>	Visual Presentation

<b>Course:</b> Management Level Course for Marine Engineer Officers (Function 4)	<b>Competence:</b> Use Leadership and Managerial Skill
	<b>Knowledge, Understanding and Proficiency:</b> Related international maritime conventions and recommendations, and related national legislation
	<b>Topic:</b> 13. Related international maritime conventions and recommendations, and related national legislation
<b>No. of Trainees:</b> Twenty-Four (24)	<b>Learning Outcome/s:</b> At the end of the session, the trainees should be able to: Refer to Part C Course Syllabus for the Intended Learning Outcomes
<b>Class Lay-out:</b> Layout suitable for theoretical part	<b>Formative Assessment:</b> Written and Practical Test

Time	Phase	Content	Instructor-Led Activity	Student-Learning Activity	Instructional Materials Used
5 mins	<b>Introduction</b>	<ul style="list-style-type: none"> <li>• Presentation of competence/KUPs</li> <li>• Intended learning Outcome</li> </ul>	<ul style="list-style-type: none"> <li>• Presentation intended learning outcomes</li> <li>• Review of previous topics</li> </ul>	Listening, note taking, inquiring, answering questions, interactive discussion	Visual presentation
50 mins	<b>Core Elements</b>	Related international maritime conventions and recommendations, and related national legislation	The MTI is required to specify suitable activities for the delivery of the topic	The MTI is required to specify suitable learning activities	<ul style="list-style-type: none"> <li>• Visual presentation</li> <li>• STCW Convention, 1978 as amended</li> </ul>
5 mins	<b>Conclusion</b>	Related international maritime conventions and recommendations, and related national legislation	<ul style="list-style-type: none"> <li>• Make generalization and abstraction of the lesson</li> <li>• Assess the learning which may come from any of the following:                             <ul style="list-style-type: none"> <li>- Formative test</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Participating, sharing insights and learning gained</li> <li>• Answering/asking questions</li> </ul>	Visual Presentation

Time	Phase	Content	Instructor-Led Activity	Student-Learning Activity	Instructional Materials Used
			<ul style="list-style-type: none"> <li>- Oral Examination</li> <li>- Assignment</li> <li>• Other activities to check the retention of learning</li> </ul>		

<b>Course:</b> Management Level Course for Marine Engineer Officers (Function 4)	<b>Competence:</b> Use Leadership and Managerial Skill
	<b>Knowledge, Understanding and Proficiency:</b> Shipboard personnel management and training
	<b>Topic:</b> 14. Shipboard personnel management and training
<b>No. of Trainees:</b> Twenty-Four (24)	<b>Learning Outcome/s:</b> At the end of the session, the trainees should be able to: Refer to Part C Course Syllabus for the Intended Learning Outcomes
<b>Class Lay-out:</b> Layout suitable for theoretical part	<b>Formative Assessment:</b> Written and Practical Test

Time	Phase	Content	Instructor-Led Activity	Student-Learning Activity	Instructional Materials Used
15 mins	<b>Introduction</b>	<ul style="list-style-type: none"> <li>• Presentation of competence/KUPs</li> <li>• Intended learning Outcome</li> </ul>	<ul style="list-style-type: none"> <li>• Presentation intended learning outcomes</li> <li>• Review of previous topics</li> </ul>	Listening, note taking, inquiring, answering questions, interactive discussion	Visual presentation
4 hours	<b>Core Elements</b>	Shipboard personnel management and training	The MTI is required to specify suitable activities for the delivery of the topic	The MTI is required to specify suitable learning activities	<ul style="list-style-type: none"> <li>• Visual presentation</li> <li>• STCW Convention, 1978 as amended</li> </ul>
1 hour	<b>Core Elements</b>	<b>Practical Exercise 15.1</b> Use Leadership and Managerial Skills	<b>Practical Exercise 15.1</b> The MTI is required to specify suitable activities for the conduct of the practical exercise in:	<b>Practical Exercise 15.1</b> Participating in the practical exercises on: <ul style="list-style-type: none"> <li>• assessing the current personnel competencies, capabilities and</li> </ul>	Exercise Sheet No.7.15.1

Time	Phase	Content	Instructor-Led Activity	Student-Learning Activity	Instructional Materials Used
			<ul style="list-style-type: none"> <li>• assessing the current personnel competencies, capabilities and operational requirements and recommend appropriate learning and development requirements and activities in accordance with generally accepted principles.</li> <li>• monitoring the effectiveness of task and workload management and adjust as necessary.</li> </ul>	<ul style="list-style-type: none"> <li>operational requirements and recommend appropriate learning and development requirements and activities in accordance with generally accepted principles.</li> <li>• monitoring the effectiveness of task and workload management and adjust as necessary.</li> </ul>	
15 mins	<b>Conclusion</b>	Shipboard personnel management and training	<ul style="list-style-type: none"> <li>• Make generalization and abstraction of the lesson</li> <li>• Assess the learning which may come from any of the following:</li> </ul>	<ul style="list-style-type: none"> <li>• Participating, sharing insights and learning gained</li> <li>• Answering/asking questions</li> </ul>	Visual Presentation

Time	Phase	Content	Instructor-Led Activity	Student-Learning Activity	Instructional Materials Used
			<ul style="list-style-type: none"> <li>- Formative test</li> <li>- Oral Examination</li> <li>- Assignment</li> <li>• Other activities to check the retention of learning</li> </ul>		

<b>Course:</b> Management Level Course for Marine Engineer Officers (Function 4)			<b>Competence:</b> Use Leadership and Managerial Skill		
			<b>Knowledge, Understanding and Proficiency:</b> Task and workload management		
			<b>Topic:</b> 15. Task and workload management		
<b>No. of Trainees:</b> Twenty-Four (24)			<b>Learning Outcome/s:</b> At the end of the session, the trainees should be able to: Refer to Part C Course Syllabus for the Intended Learning Outcomes		
<b>Class Lay-out:</b> Layout suitable for theoretical part			<b>Formative Assessment:</b> Written and Practical Test		
Time	Phase	Content	Instructor-Led Activity	Student-Learning Activity	Instructional Materials Used
10 minutes	<b>Introduction</b>	<ul style="list-style-type: none"> <li>• Presentation of competence/KUPs</li> <li>• Intended learning Outcome</li> </ul>	<ul style="list-style-type: none"> <li>• Presentation intended learning outcomes</li> <li>• Review of previous topics</li> </ul>	Listening, note taking, inquiring, answering questions, interactive discussion	Visual presentation
3 hours and 40 mins	<b>Core Elements</b>	Task and workload management	The MTI is required to specify suitable activities for the delivery of the topic	The MTI is required to specify suitable learning activities	<ul style="list-style-type: none"> <li>• Visual presentation</li> <li>• MLC 2006</li> <li>• SMS</li> </ul>
3 hours	<b>Core Elements</b>	<b>Practical Exercise 15.1</b>  Use Leadership and Managerial Skills	<b>Practical Exercise 15.1</b>  The MTI is required to specify suitable activities for the conduct of the practical exercise on: <ul style="list-style-type: none"> <li>• applying task and workload management including planning and coordination,</li> </ul>	<b>Practical Exercise 15.1</b>  Participating in the practical exercises in: <ul style="list-style-type: none"> <li>• applying task and workload management including planning and coordination, personnel assignment, time and</li> </ul>	Exercise Sheet No. A7.15.1

Time	Phase	Content	Instructor-Led Activity	Student-Learning Activity	Instructional Materials Used
			personnel assignment, time and resource constraints, and prioritization <ul style="list-style-type: none"> <li>• monitoring the effectiveness of task and workload management</li> </ul>	resource constraints, and prioritization <ul style="list-style-type: none"> <li>• monitoring the effectiveness of task and workload management</li> </ul>	
10 minutes	<b>Conclusion</b>	Task and workload management	<ul style="list-style-type: none"> <li>• Make generalization and abstraction of the lesson</li> <li>• Assess the learning which may come from any of the following:                             <ul style="list-style-type: none"> <li>- Formative test</li> <li>- Oral Examination</li> <li>- Assignment</li> </ul> </li> <li>• Other activities to check the retention of learning</li> </ul>	<ul style="list-style-type: none"> <li>• Participating, sharing insights and learning gained</li> <li>• Answering/asking questions</li> </ul>	Visual Presentation



<b>Course:</b> Management Level Course for Marine Engineer Officers (Function 4)	<b>Competence:</b> Use Leadership and Managerial Skill
	<b>Knowledge, Understanding and Proficiency:</b> Effective resource management
	<b>Topic:</b> 16. Effective resource management
<b>No. of Trainees:</b> Twenty-Four (24)	<b>Learning Outcome/s:</b> At the end of the session, the trainee will be able to: Refer to Part C Course Syllabus for the Intended Learning Outcomes
<b>Class Lay-out:</b> Layout suitable for theoretical part	<b>Formative Assessment:</b> Written and Practical Test

Time	Phase	Content	Instructor-Led Activity	Student-Learning Activity	Instructional Materials Used
5 mins	<b>Introduction</b>	<ul style="list-style-type: none"> <li>• Presentation of competence/KUPs</li> <li>• Intended learning Outcome</li> </ul>	<ul style="list-style-type: none"> <li>• Presentation intended learning outcomes</li> <li>• Review of previous topics</li> </ul>	Listening, note taking, inquiring, answering questions, interactive discussion	Visual presentation
2 hours and 20 mins	<b>Core Elements</b>	Effective resource management	The MTI is required to specify suitable activities for the delivery of the topic	The MTI is required to specify suitable learning activities	<ul style="list-style-type: none"> <li>• Visual presentation</li> <li>• STCW</li> <li>• MLC 2006</li> <li>• SMS</li> </ul>
1 hour	<b>Core Elements</b>	<b>Practical Exercise 15.1</b>  Use Leadership and Managerial Skills	<b>Practical Exercise 15.1</b>  The MTI is required to specify suitable activities for the conduct of the practical exercise on applying effective resource management	<b>Practical Exercise 15.1</b>  Participating in the practical exercises on applying effective resource management	Exercise Sheet No. A7.15.1

Time	Phase	Content	Instructor-Led Activity	Student-Learning Activity	Instructional Materials Used
5 mins	<b>Conclusion</b>	Effective resource management	<ul style="list-style-type: none"> <li>• Make generalization and abstraction of the lesson</li> <li>• Assess the learning which may come from any of the following:                             <ul style="list-style-type: none"> <li>- Formative test</li> <li>- Oral Examination</li> <li>- Assignment</li> </ul> </li> <li>• Other activities to check the retention of learning</li> </ul>	<ul style="list-style-type: none"> <li>• Participating, sharing insights and learning gained</li> <li>• Answering/asking questions</li> </ul>	Visual Presentation

<b>Course:</b> Management Level Course for Marine Engineer Officers (Function 4)		<b>Competence:</b> Use Leadership and Managerial Skill			
		<b>Knowledge, Understanding and Proficiency:</b> Decision-making techniques			
		<b>Topic:</b> 17. Decision-making techniques			
<b>No. of Trainees:</b> Twenty-Four (24)		<b>Learning Outcome/s:</b> At the end of the session, the trainees should be able to: Refer to Part C Course Syllabus for the Intended Learning Outcomes			
<b>Class Lay-out:</b> Layout suitable for theoretical part		<b>Formative Assessment:</b> Written and Practical Test			
Time	Phase	Content	Instructor-Led Activity	Student-Learning Activity	Instructional Materials Used
5 mins	<b>Introduction</b>	<ul style="list-style-type: none"> <li>• Presentation of competence/KUPs</li> <li>• Intended learning Outcome</li> </ul>	<ul style="list-style-type: none"> <li>• Presentation intended learning outcomes</li> <li>• Review of previous topics</li> </ul>	Listening, note taking, inquiring, answering questions, interactive discussion	Visual presentation
2 hours and 50 mins	<b>Core Elements</b>	Decision-making techniques	The MTI is required to specify suitable activities for the delivery of the topic	The MTI is required to specify suitable learning activities	<ul style="list-style-type: none"> <li>• Visual presentation</li> <li>• SMS (Risk Assessment)</li> </ul>
1 hour	<b>Core Elements</b>	<b>Practical Exercise 15.1</b> Use leadership and managerial skills	<b>Practical Exercise 15.1</b> The MTI is required to specify suitable activities for the conduct of the practical exercise on applying the most effective decision-making techniques	<b>Practical Exercise 15.1</b> Participating in the practical exercise in applying the most effective decision-making techniques	Exercise Sheet No. A7.15.1

Time	Phase	Content	Instructor-Led Activity	Student-Learning Activity	Instructional Materials Used
5 mins	<b>Conclusion</b>	Decision-making techniques	<ul style="list-style-type: none"> <li>• Make generalization and abstraction of the lesson</li> <li>• Assess the learning which may come from any of the following:                             <ul style="list-style-type: none"> <li>- Formative test</li> <li>- Oral Examination</li> <li>- Assignment</li> </ul> </li> <li>• Other activities to check the retention of learning</li> </ul>	<ul style="list-style-type: none"> <li>• Participating, sharing insights and learning gained</li> <li>• Answering/asking questions</li> </ul>	Visual Presentation

<b>Course:</b> Management Level Course for Marine Engineer Officers (Function 4)		<b>Competence:</b> Use Leadership and Managerial Skill			
		<b>Knowledge, Understanding and Proficiency:</b> Development, implementation and oversight of standard operating procedures			
		<b>Topic:</b> 18. Development, implementation and oversight of standard operating procedures			
<b>No. of Trainees:</b> Twenty-Four (24)		<b>Learning Outcome/s:</b> At the end of the session, the trainees should be able to: Refer to Part C Course Syllabus for the Intended Learning Outcomes			
<b>Class Lay-out:</b> Layout suitable for theoretical part		<b>Formative Assessment:</b> Written and Practical Test			
Time	Phase	Content	Instructor-Led Activity	Student-Learning Activity	Instructional Materials Used
5 mins	<b>Introduction</b>	<ul style="list-style-type: none"> <li>• Presentation of competence/KUPs</li> <li>• Intended learning Outcome</li> </ul>	<ul style="list-style-type: none"> <li>• Presentation intended learning outcomes</li> <li>• Review of previous topics</li> </ul>	Listening, note taking, inquiring, answering questions, interactive discussion	Visual presentation
2 hours 20 mins	<b>Core Elements</b>	Development, implementation and oversight of standard operating procedures	The MTI is required to specify suitable activities for the delivery of the topic	The MTI is required to specify suitable learning activities	<ul style="list-style-type: none"> <li>• Visual presentation</li> <li>• SMS</li> </ul>
2 hours and 30 mins	<b>Core Elements</b>	<b>Practical Exercise 15.2</b> Use leadership and managerial skills	<b>Practical Exercise 15.2</b> The MTI is required to specify suitable activities for the conduct of the practical exercise on developing, implementing, and overseeing standard operating procedures	<b>Practical Exercise 15.2</b> Participating in the practical exercise in developing, implementing, and overseeing standard operating procedures	Exercise Sheet No. A7.15.2

Time	Phase	Content	Instructor-Led Activity	Student-Learning Activity	Instructional Materials Used
5 mins	<b>Conclusion</b>	Development, implementation and oversight of standard operating procedures	<ul style="list-style-type: none"> <li>• Make generalization and abstraction of the lesson</li> <li>• Assess the learning which may come from any of the following:                             <ul style="list-style-type: none"> <li>- Formative test</li> <li>- Oral Examination</li> <li>- Assignment</li> </ul> </li> <li>• Other activities to check the retention of learning</li> </ul>	<ul style="list-style-type: none"> <li>• Participating, sharing insights and learning gained</li> <li>• Answering/asking questions</li> </ul>	Visual Presentation