

Part C

Course Syllabus

The course syllabus has been written in learning outcome format in which the outcome describes what the trainee must do to demonstrate that the specified knowledge or skill has been acquired and the proper attitude has been developed. All the outcomes are understood to be prefixed by the words, “At the end of the session the trainees should be able to ...”

Topics / Learning Outcomes	Reference/ Bibliography	Teaching Aid
<p>Course Introduction</p> <p>.1 explain the requirements under Regulation III/2, Section A-III/2 Function 3 of the STCW Convention and Code.</p> <p>.2 explain the training outcomes and course requirements.</p> <p>.3 explain the leadership skill that a management level officer should possess.</p>	R1	A1
<i>Competence: Ensure Safe Working Practices</i>		
<p>1. Safe Working Practices</p> <p>.1 explain safe working practices including risk assessment, use of checklist, permit to work, and best practices in ship’s maintenance and repair and the Code of Safe Working Practices.</p>	R4, B2	A1
<i>Competence: Manage Safe and Effective Maintenance and Repair Procedures</i>		
<p>2. Marine Engineering Practice</p> <p>.1 explain the best management practices in planning and carrying out maintenance and repair activities for the following in accordance with technical, legislative, safety and procedural specifications:</p>	B1, B3, B4	A1, A3,

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<ul style="list-style-type: none"> • main propulsion system, • steam system • generator and distribution system • auxiliary machineries • statutory and class verifications 		
<p>3. Planning maintenance, including statutory and class verifications</p> <p>.1 plan maintenance activities, including statutory and class verifications of main propulsion, steam system, generator and distribution system, and auxiliary machineries in accordance with ship's Planned Maintenance System (PMS) and safe working practices in a given scenario.</p>	B1, B3, B4	A1, A3, A4.2
<p>4. Planning Repairs</p> <p>.1 plan repair activities of the following in accordance with safe working practices in a given scenario:</p> <ul style="list-style-type: none"> • main propulsion, • steam system, • generator and distribution system, • auxiliary machineries, • statutory and class verifications. 	B1, B3, B4	A1, A3, A4.3
<p>5. Manage Safe and Effective Maintenance and Repair Procedures</p> <p>.1 manage safe and effective maintenance and repair procedures of the following in accordance with operational manual and technical specifications in a given scenario.</p> <ul style="list-style-type: none"> • main propulsion • steam system • generator and distribution systems • auxiliary machineries 	B1, B3, B4	A1, A3, A4.1

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<p>.2 monitor the adherence to safe working practices of any particular engine room maintenance or repair activity in accordance with legislative requirements, codes of practice, permit to work, and environmental concerns in a given scenario.</p>		A4.1
<p><i>Competence: Detect and Identify the Cause of Machinery Malfunctions and Correct Faults</i></p>		
<p>6. Detection of Machinery Malfunctions, Location of Faults and Action to Prevent Damage</p> <p>.1 explain the methods of comparing actual operating conditions against normal operating conditions in accordance with recommended practices and procedures</p> <p>.2 detect machinery malfunctions by comparing the actual operating condition against the normal operating condition and other methods to locate faults, in accordance with recommended practices and procedures in a given scenario</p> <p>.3 decide on appropriate actions to take to correct faults and prevent damage in accordance with best practices and established procedures based on the malfunctions detected and faults located</p>	B1, B3, B4	A1, A3, A4.4 A4.4
<p>7. Inspection and Adjustment of Equipment</p> <p>.1 explain the procedures for inspection and adjustment of equipment as per manufacturer's manual.</p> <p>.2 supervise the inspection of the equipment in accordance with recommended operating</p>	B1, B3, B4	A1, A3, A4.5

Topics / Learning Outcomes	Reference/ Bibliography	Teaching Aid
<p>specifications and limitations in a given scenario.</p> <p>.3 decide the necessary adjustment of the equipment in accordance with recommended operating specifications and limitations in a given scenario</p>		A4.5
<p>8. Non-destructive Examination</p> <p>.1 explain the different methods of non-destructive examination of machineries and equipment</p> <p>.2 decide on the appropriate maintenance and repair of machineries and equipment based on the results of non-destructive examination</p>	B1, B3, B4	A1, A3, A4.6