

**SKILLS FRAMEWORK FOR SEA TRANSPORT  
TECHNICAL SKILLS AND COMPETENCIES (TSC) REFERENCE**

<b>TSC Category</b>	Business Development					
<b>TSC</b>	Systems Thinking Application					
<b>TSC Description</b>	Understand complexity of cause-and-effect relationships of systems and processes across the organisation, as well as evaluate systems based on value-creation and contribution to specific issues					
<b>TSC Proficiency</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Level 4</b>	<b>Level 5</b>	<b>Level 6</b>
		<b>STP-ACE-2007-1.1-1</b>	<b>STP-ACE-3007-1.1-1</b>	<b>STP-ACE-4007-1.1-1</b>	<b>STP-ACE-5007-1.1-1</b>	
		Apply systems thinking to perform first level root cause and issue identification	Understand the interrelationship of various processes affecting work activities, assess processes and systems holistically and examine aggregates rather than individual activities	Monitor the interrelationship of systems and processes across the organisation and evaluate these systems based on value creation and contribution to specific issues	Understand complexity of cause-and-effect relationships of systems and processes across the organisation and provide direction to improve organisational systems based on gaps identified	
<b>Knowledge</b>		<ul style="list-style-type: none"> <li>• Organisation's mission, vision and values</li> <li>• Definitions of systems thinking</li> <li>• Features of systems thinking</li> <li>• Benefits of system thinking</li> <li>• Types of tools in term of system thinking application</li> </ul>	<ul style="list-style-type: none"> <li>• Limitations of appropriate evaluation processes to assess effectiveness of system thinking application</li> <li>• Sources of information for assessing the effectiveness of system thinking application</li> <li>• Possible success indicators of chosen solutions</li> <li>• Considerations in selecting the appropriate methods to document the process of applying systems thinking</li> </ul>	<ul style="list-style-type: none"> <li>• Organisation from a systems perspective</li> <li>• Applications of system thinking</li> <li>• Approaches and problem-solve solutions related to system thinking application</li> <li>• Characteristics and application of the various decision-making Models</li> <li>• Considerations in designing suitable criteria to assess effectiveness of chosen solution(s)</li> </ul>	<ul style="list-style-type: none"> <li>• Concepts of systems thinking application</li> <li>• Limitations of appropriate evaluation processes to assess effectiveness of system thinking application</li> </ul>	
<b>Abilities</b>		<ul style="list-style-type: none"> <li>• Identify leverage within the system to obtain results</li> <li>• Identify issues affecting achievement of desired goals and outcomes</li> <li>• Prepare system diagrams presenting identified root causes</li> <li>• Document process of</li> </ul>	<ul style="list-style-type: none"> <li>• Understand how various processes are related</li> <li>• Assess processes and systems in a holistic manner</li> <li>• Implement systems thinking approaches and processes to propose solutions</li> </ul>	<ul style="list-style-type: none"> <li>• Monitor interrelationships of systems and processes</li> <li>• Evaluate the performance of system applications</li> <li>• Assess the effectiveness of the chosen solutions using an appropriate evaluation process</li> <li>• Analyse issues that affect</li> </ul>	<ul style="list-style-type: none"> <li>• Understand cause-and effect relationships</li> <li>• Provide direction to improve organisational systems</li> <li>• Evaluate the effectiveness of system thinking application</li> <li>• Develop an implementation plan for</li> </ul>	

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		<p>applying systems thinking in problem-solving and decision-making</p>		<p>the achievement of desired goals and outcomes in the macro context</p>	<p>the chosen solutions to resolve issues that affect the achievement of desired goals and outcomes in an organisation</p> <ul style="list-style-type: none"> <li>• Use systems thinking tools to formulate possible solutions to resolve issues that affect the achievement of desired goals and outcomes</li> <li>• Select suitable solutions using established criteria to resolve issues that affect the achievement of desired goals and outcomes</li> <li>• Recommend corrective actions to improve chosen solutions</li> </ul>	
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