

COURSE OUTLINE

Course Title	Reliability-Centred Maintenance (RCM)
Course Code	CRS-Q-0042047-EPW
Course Description	Reliability-centred maintenance (RCM) involves establishing and maintaining an asset-specific maintenance plan to ensure that all equipment functions as designed, with good reliability and availability, and at the lowest possible cost. In this course, you will learn the principles of reliability-centred maintenance, differentiate between the different modes of maintenance, and describe analysis methods used in developing effective maintenance plans. You will learn to select the applicable and effective maintenance strategy for your production and operating assets. You will know how to develop, build and introduce a reliability-centred maintenance program.
Course Objectives	<p>At the end of the course, participants will be able:</p> <ol style="list-style-type: none"> 1. Understand the principles of Reliability-Centred Maintenance management and Asset Integrity Management; 2. Comprehend the concept of Reliability and Failure; 3. Describe Reliability assessment methods; 4. Perform Failure Mode and Effects Analysis (FMEA) and Criticality Analysis (FMECA); 5. Perform Failure Tree Analysis (FTA) and Root Cause Failure Analysis (RCFA) ; 6. Differentiate between Maintenance and Maintainability; 7. Cite the types of Maintenance strategies; 8. Understand Maintainability engineering principles; 9. Describe Risk-based inspection methods; 10. Understand Asset Life Cycle costing principles.
What the Course will cover	<p>Course contents include:</p> <ol style="list-style-type: none"> 1 Reliability-Centred Maintenance Principles <ul style="list-style-type: none"> ○ Asset integrity management (AIM) ○ Concept of Reliability and Failure ○ Maintenance Concept ○ Maintenance Task Classification ○ Maintenance Policies ○ Introduction to Reliability-Centred Maintenance (RCM) ○ Reliability-Centred Maintenance Process ○ Reliability-Centred Maintenance Key Features ○ Reliability-Centred Maintenance Benefits 2 Reliability-Centred Maintenance Methodology <ul style="list-style-type: none"> ○ System Selection ○ Fault Mode and Effects Analysis (FMEA) ○ Functional Block Diagram (FBD)

	<ul style="list-style-type: none"> ○ Identification of Functional Failure ○ Identification of Failure Causes and Effects ○ Decision Logic Tree Analysis ○ Maintenance Task ○ Fault Modes, Effects and Criticality Analysis (FMECA) ○ Fault Tree Analysis (FTA) ○ Root Cause Failure Analysis Incident Investigation <p>3 Maintenance Optimisation</p> <ul style="list-style-type: none"> ○ Concept of Maintainability ○ Reasons for Application of Maintainability Principles ○ Measures of Maintainability ○ Maintainability Allocation ○ Life Cycle Costing ○ Risk-based inspection
Instructional Methods	<ul style="list-style-type: none"> ● Power-points ● Case Studies ● Video
Assessment Methods	<ul style="list-style-type: none"> ● Written Test ● Case Study
Certification	Upon successful completion of the course, the learner will be issued a WSQ Statement of Attainment issued by SSG.
Course Duration	2 days
Course Fee (before subsidy)	\$660
SSG subsidy for Singaporean and PR below 40 yr old	\$240
SSG subsidy for Singaporean above 40yr old	\$594