

CERTIFIED RELIABILITY ENGINEER



Objectives

To provide participants with knowledge in Reliability Engineering. The programme covers the basic principles in Reliability, Availability and Maintainability, Reliability Management Control and the tools used in Reliability Engineering. At the end of the course, participants will be able to:

- Assume the role of a reliability engineer in planning and implementing the Reliability Programme as well as predict, test and improve product reliability
- Be adequately prepared to sit for the CRE examinations conducted by ASQ

Duration

Every Saturdays | 9am to 4pm | 4 months | 106 hours

Who should attend

Engineers and managers who intend to acquire knowledge in reliability engineering and mathematical methods to improve product reliability, diagnose and solve various reliability problems for overall improvements of the quality systems.

Entry Requirement

Diploma with at least 4 years working experience in the quality related field;
Degree with at least 2 years working experience in the quality related field.

Course Fees

Member: S\$3,760.02

Non-Member: S\$4,447.22

Registration Fee of S\$17.28 and Exam & Certification Fees of S\$216 apply

SDF funding & SkillsFuture applicable

All fees stated are inclusive of 8% GST

Assessment Method

Written examination - held approximately 4 weeks from end of course



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Course Contents

Reliability Management and Product Safety & Liability

- Planning & Resource Management
- Operations Management

Probability & Statistical Tools

- Basic Concept
- Statistical Inference
- Design of Experiments

Modeling and Predictions

- Reliability Allocation
- Reliability Modeling
- Reliability Predictions

Reliability Tools in Design and Development

- Developing customer needs
- Design Techniques
- Parts Control & Management
- Management Technique

Data Collection and Analysis and Corrective Action

- Failure Reporting & Corrective Action Systems
- Root Causes Analysis
- Fault Tree Analysis (FTA)

Reliability Testing

- Pre-development Planning
- Development Testing
- Product Testing

Maintainability and Availability

- Planning & developing a maintainability program
- Maintainability Prediction
- Availability
- Design for maintainability
- Built-in Test
- Design Review

Key Benefits

- Strategic management aspects of reliability engineering
- Use probability and statistical tools to analyse product lifecycle, conduct hypothesis testing, understand appropriate statistical models, tolerance and confidence intervals, sample size determination, and regression analysis
- Develop reliability test plans that represent the expected use environment and operational conditions. Will select, analyse, and interpret the results of various test methods to be used during product development and end product testing



Please refer to this URL
<https://www.sqi.org.sg/courses/>
or QR Code for soft copy
and updated training schedule

Membership Application

Register membership online at
www.sqi.org.sg/membership-join/
or contact us to get the membership
application form.

Membership Categories:

- ~ Organisation membership
- ~ Individual membership

Singapore Quality Institute (SQI) operates as a non-profit professional institute that promotes and advances excellence in the field of quality in Singapore; and actively champions quality initiatives in the region and around the world through networking and collaborating with other international quality organisations.

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