



COURSE OVERVIEW RE0017

Certified Maintenance & Reliability Professional (CMRP)

(SMRP Exam Preparation Training)

Course Title

Certified Maintenance & Reliability Professional (CMRP): (SMRP Exam Preparation Training)

Course Date/Venue

December 21-25 ,2026/Delma Meeting Room, Royal Rose Hotel Abu Dhabi, a Curio Collection by Hilton Affiliated Hotel, Abu Dhabi, UAE

Course Reference

RE0017

Course Duration/Credits

Five days/3.0 CEUs/30 PDHs



Course Description



This practical and highly-interactive course includes real-life case studies and exercises where participants will be engaged in a series of interactive small groups and class workshops.

The Certified Maintenance & Reliability Professional (CMRP) program is the #1 leading credentialing program for certifying the knowledge, skills and abilities of maintenance and reliability professionals. The CMRP program is certified by the Society for Maintenance and Reliability Professionals (SMRP).



Examining more than just textbook information, the CMRP is a thorough examination of a broader scope of expertise measured against a universal standard. It was developed to assess professionals' aptitude within the five (5) pillars of the Maintenance and Reliability Body of Knowledge: Business & Management, Manufacturing Process Reliability, Equipment Reliability, Organization & Leadership, and Work Management.



Every organization has a process for handling and documenting maintenance issues. Some are as simple and informal as the user calls maintenance to come fix something. Others use high powered computerized maintenance management software (CMMS).



Some organizations use formal planning and scheduling while others have the maintenance personnel plan and schedule their own work. Experience has shown that more informal and less planned and scheduled work is highly inefficient. On the other hand, too much planning, scheduling and documentation can also inefficiently use maintenance resources. The aim is to find the right balance of planning, scheduling and documentation to maximize the use of maintenance resources. In addition, one of the biggest challenges to adopting new processes is gaining acceptance at all levels in the organization. Management of change techniques is essential to a successful program.

This interactive course is designed to provide the participants with the information needed to understand their own maintenance management process as well as make improvements to their processes, so they can more effectively and efficiently use their maintenance resources. The participants will understand basic process development, planning and scheduling concepts and have the tools they need to work within their organization to improve the way they manage maintenance work.

The course includes an e-book entitled "*Maintenance and Reliability Certification Exam Guide*", published by Industrial Press, Inc., which will be given to the participants to help them appreciate the principles presented in the course.

Course Objectives/Outcomes & Benefits for the Participants

Upon the successful completion of the course, each participant will be able to:-

- Get prepared for the next CMRP exam and have enough knowledge and skills to pass such exam in order to get the CMRP certification from SMRP
- Explain the five pillars of the SMRP Body of Knowledge
- Connect reliability initiatives to business and operational objectives
- Evaluate manufacturing-process losses and asset criticality
- Select appropriate preventive, predictive, and corrective strategies
- Apply basic reliability calculations and problem-solving tools
- Lead organizational and cultural reliability improvements
- Plan, schedule, execute, and measure maintenance work effectively
- Integrate the five pillars when addressing CMRP-style scenarios

Exclusive Smart Training Kit - H-STK®



*Participants of this course will receive the exclusive "Howard Smart Training Kit" (H-STK®). The H-STK® consists of a comprehensive set of technical content which includes **electronic version** of the course materials conveniently saved in a **Tablet PC**.*



Who Should Attend

This course covers systematic techniques in maintenance and reliability management to assist maintenance management personnel responsible for delivering maximum reliability and availability of equipment at the lowest possible cost. The course will present techniques designed to improve the effectiveness of maintenance management activities, to ensure that physical assets perform their required functions, operate reliably, and support corporate goals. It is essential for all maintenance and reliability management staff including reliability and mechanical engineers who are directly responsible for the equipment reliability and maintenance. The course is ideal for those experienced maintenance and reliability professionals who are seeking an international professional certification.

Exam Eligibility & Structure

The CMRP is an experienced-based exam. A candidate is unlikely to pass the exam based on knowledge gained from a book, course or educational degree.

Training Methodology

Our courses employ an interactive, learner-centred methodology that integrates theoretical knowledge with practical application. The training is delivered through a suitable combination of some or all of the following methods, selected according to the course content and learning objectives:

- Instructor-led presentations and facilitated discussions
- Practical workshops and participant presentations
- Hands-on exercises and real-world case studies
- Equipment demonstrations and technical drawings
- Hardware- and software-based simulations
- Gamification & Role Play in soft-skills courses only
- Virtual Reality (VR) and Augmented Reality (AR)
- Instructional videos and other relevant training resources

This blended approach encourages active participation, strengthens practical skills and supports the effective application of acquired knowledge in the workplace.

Learning Design & Customization

This course can be customized to the exact requirements of clients. Haward Technology is so proud of our huge capabilities in tailoring our courses to the training needs of our valued clients.

Training Fee

US\$ 6,000 per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Exam Fee

US\$ 630 per Delegate + **VAT**.



SMRP-CMRP Certificate(s)

- (1) SMRP-CMRP certificates will be issued to participants who have successfully passed the SMRP-CMRP examination.



- (2) Official Transcript of Records will be provided to the successful delegates with the equivalent number of ANSI/IACET accredited Continuing Education Units (CEUs) earned during the course





Certificate Accreditations

Haward's certificates are accredited by the following international accreditation organizations: -



Society for Maintenance & Reliability Professionals (SMRP)

The course instructor is certified by **The Society for Maintenance & Reliability Professionals (SMRP)** to deliver and administer its internationally-recognized qualifications and certification programs on Maintenance & Reliability Best Practices. **SMRP** is a nonprofit professional society formed by practitioners to advance the reliability and physical asset management industry and to create leaders in the field. SMRP provides unparalleled value for individual practitioners looking to expand their knowledge and skills in maintenance and reliability and build more business connections with other practitioners.



British Accreditation Council (BAC)

Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. Haward's certificates are internationally recognized and accredited by the British Accreditation Council (BAC). BAC is the British accrediting body responsible for setting standards within independent further and higher education sector in the UK and overseas. As a BAC-accredited international centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.



The International Accreditors for Continuing Education and Training (IACET - USA)

Haward Technology is an Authorized Training Provider by the International Accreditors for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this authority, Haward Technology has demonstrated that it complies with the **ANSI/IACET 2018-1 Standard** which is widely recognized as the standard of good practice internationally. As a result of our Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for its programs that qualify under the **ANSI/IACET 2018-1 Standard**.

Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking **Continuing Education Units (CEUs)** in accordance with the rules & regulations of the International Accreditors for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

Haward Technology Middle East will award **3.0 CEUs** (Continuing Education Units) or **30 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation in and completion of Haward Technology programs. A permanent record of a participant's involvement and awarding of CEU will be maintained by Haward Technology. Haward Technology will provide a copy of the participant's CEU and PDH Transcript of Records upon request.



Course Instructor(s)

This course will be conducted by the following instructor(s). However, we have the right to change the course instructor(s) prior to the course date and inform participants accordingly:



Mr. George Loizou, MSc, BSc, CMRP, is a **Senior Mechanical & Maintenance Engineer** with over **30 years** of industrial experience within the **Oil, Gas, Refinery** and **Petrochemical** industries. His field of expertise includes Effective **Reliability Maintenance**, Excellence in **Maintenance & Reliability Management**, **Preventive & Predictive Maintenance**, Machinery Failure Analysis (**RCFA**), **Reliability Optimization & Continuous Improvement**, **Maintenance Planning, Scheduling & Work Control**, **Maintenance Management Strategy**, **Maintenance Management**, **Turnaround Management**, **Maintenance Planning & Scheduling**, **Shaft Alignment**, **Dynamic Balancing**, **Vibration Analysis**, **Rotating Machinery Maintenance**, **Heat Exchanger Maintenance**, **Storage Tank and Piping Design Construction and Maintenance**.

During his career, Mr. Loizou gained his practical and field experience through his various significant positions and dedication as the **Head of Mechanical Maintenance**, **Project Manager**, **Terminal Manager** and **Engineering Manager** for numerous companies such as **Cyprus Petroleum Refinery Ltd** and **Cyprus Petroleum Storage Company Ltd**.

Mr. Loizou has **Master** and **Bachelor** degrees in **Mechanical Engineering** from **The Pennsylvania State University** and **State University of New York, USA**, respectively. Further, he is a **Certified Instructor/Trainer**, a member of **SMRP**, a **Certified Maintenance and Reliability Professional (CMRP)** and approved **Exam Proctor** for the Society for Maintenance and Reliability Professionals Certifying Organization (**SMRPCO**). He is also a member of the Cyprus Scientific and Technical Chamber and the Institution of Mechanical Engineers of UK (**IMechE**). Mr. Loizou has served for two terms as member of the Cyprus Industrial Dispute Tribunal. He also served as President of the Rotary Club of Larnaca Cyprus and has further delivered numerous trainings, courses, workshops, seminars and conferences internationally.

Accommodation

Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking



Course Program

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the workshop for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

Day 1: Business & Management

0730 – 0800	Registration & Coffee
0800 – 0815	Welcome & Introduction
0815 – 0830	PRE-TEST
0830 – 0930	Maintenance & Reliability Business Strategy Aligning Maintenance and Reliability Objectives with Corporate Goals • Translating Business Requirements into Reliability Priorities • Developing a Maintenance and Reliability Mission and Vision • Creating Short-, Medium- and Long-Term Strategic Plans
0930 – 0945	Break
0945 – 1030	Business & Operational Performance Understanding Production, Quality, Cost, Delivery, Safety and Environmental Objectives • Identifying Maintenance-Related Business Value • Connecting Asset Performance to Customer Requirements • Balancing Cost, Risk, Reliability and Operational Output
1030 – 1130	Maintenance & Reliability Economics Classifying Labor, Material, Contractor, Downtime and Overhead Costs • Developing Maintenance Operating and Capital Budgets • Applying Life-Cycle Costing and Total Cost of Ownership • Evaluating Payback Period, Return on Investment and Net Present Value
1130 – 1215	Performance Measurement & Benchmarking Selecting Leading and Lagging Maintenance Indicators • Applying Availability, Reliability, Maintainability and Cost Metrics • Establishing Targets, Baselines and Performance Dashboards • Conducting Internal and External Benchmarking
1215 – 1230	Break
1230 – 1330	Risk, Safety & Regulatory Management Identifying Operational, Asset, Safety, Environmental and Compliance Risks • Using Risk Matrices to Rank Threats and Opportunities • Integrating Maintenance with Process Safety and Regulatory Requirements • Developing Mitigation, Contingency and Business-Continuity Plans
1330 – 1420	Continuous Improvement & Business Cases Applying Plan-Do-Check-Act, Lean and Six Sigma Principles • Identifying and Prioritizing Improvement Opportunities • Preparing Financial and Operational Justifications for Reliability Projects • Tracking Benefits and Sustaining Improvements after Implementation
1420 – 1430	Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow
1430	Lunch & End of Day One



Day 2: Manufacturing Process Reliability

0730 – 0830	Manufacturing & Process Fundamentals Mapping the Production Process from Inputs to Finished Outputs • Identifying Process Functions, Operating Parameters and Constraints • Understanding the Relationship Between Process Stability and Equipment Health • Recognizing Interactions Among Maintenance, Operations, Engineering and Quality
0830 – 0930	Process Performance Measurement Calculating Throughput, Yield, Capacity Utilization and Efficiency • Understanding Overall Equipment Effectiveness and its Components • Measuring Availability, Performance Losses, and Quality Losses • Interpreting Production Trends and Identifying Chronic Losses
0930 – 0945	Break
0945 – 1100	Asset Criticality & Process Risk Establishing Asset-Criticality Assessment Criteria • Evaluating Safety, Environmental, Production, Quality, and Cost Consequences • Applying Risk-Ranking and Criticality Matrices • Using Criticality Results to Prioritize Maintenance Resources and Strategies
1100 – 1215	Process Loss & Constraint Analysis Identifying Bottlenecks and Production Constraints • Separating Planned Downtime from Unplanned Losses • Applying Pareto Analysis to Production and Reliability Losses • Quantifying the Business Impact of Speed, Quality, and Availability Losses
1215 – 1230	Break
1230 – 1330	Operations–Maintenance Partnership Defining Shared Ownership of Asset Performance • Establishing Operator Care and Basic Equipment–Care Responsibilities • Improving Defect Identification and Work-Request Quality • Coordinating Operating Windows, Shutdowns and Maintenance Access
1330 – 1420	Process Improvement & Change Control Applying Statistical Process Control and Basic Variation Analysis • Using Lean Methods to Reduce Waste and Improve Flow • Evaluating Reliability Consequences of Process or Equipment Changes • Applying Management-of-Change and Post-Implementation Review Processes
1420 – 1430	Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow
1430	Lunch & End of Day Two

Day 3: Equipment Reliability

0730 – 0830	Reliability & Maintainability Fundamentals Defining Reliability, Availability, Maintainability and Dependability • Understanding Failure Rate, Probability of Failure and Asset Life Characteristics • Calculating Mean Time Between Failures and Mean Time to Repair • Distinguishing Inherent Reliability from Operational Reliability
0830 – 0930	Failure Modes & Reliability Strategy Selection Identifying Asset Functions, Functional Failures and Failure Modes • Assessing Failure Effects, Consequences and Risk • Applying Failure Modes and Effects Analysis • Selecting Preventive, Predictive, Redesign, Run-to-Failure or Detective Tasks
0930 – 0945	Break



0945 – 1100	Preventive Maintenance Development & Optimization Selecting Time-Based, Usage-Based and Condition-Based Tasks • Establishing Technically Appropriate Task Intervals • Eliminating Duplicate, Ineffective, or Intrusive Maintenance • Reviewing PM Compliance, Findings, Failures and Task Effectiveness
1100 – 1215	Condition Monitoring & Predictive Maintenance Applying Vibration Analysis and Machinery Health Monitoring • Using Infrared Thermography and Ultrasound Inspection • Interpreting Lubrication and Wear-Debris Analysis • Integrating Inspection Results into Work Identification and Decision-Making
1215 – 1230	Break
1230 – 1330	Root Cause Analysis & Defect Elimination Distinguishing Physical, Human and Organizational Causes • Applying Five-Whys, Cause-and-Effect and Fault-Tree Methods • Developing Evidence-Based Corrective Actions • Verifying Action Effectiveness and Preventing Recurrence
1330 – 1420	Asset Life-Cycle Reliability Incorporating Reliability and Maintainability into Design Requirements • Applying Life-Cycle Cost Principles to Asset Selection • Managing Installation, Commissioning and Precision-Maintenance Standards • Planning Asset Renewal, Replacement, Preservation and Decommissioning
1420 – 1430	Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow
1430	Lunch & End of Day Three

Day 4: Organization & Leadership

0730 – 0830	Organizational Structure & Responsibilities Defining Maintenance, Reliability, Planning, Scheduling and Operations Roles • Establishing Accountability Through Responsibility-Assignment Matrices • Evaluating Centralized, Decentralized and Hybrid Maintenance Structures • Aligning Decision Authority with Asset-Performance Responsibilities
0830 – 0930	Reliability Leadership & Culture Establishing Leadership Behaviors that Support Reliability • Moving from Reactive Maintenance to Proactive Asset Management • Creating Shared Ownership Between Operations and Maintenance • Reinforcing Standards Through Coaching, Recognition, and Accountability
0930 – 0945	Break
0945 – 1100	Workforce Competency & Development Conducting Skills and Competency-Gap Assessments • Developing Role-Based Technical and Leadership Training Plans • Establishing Qualification, Certification and Assessment Systems • Supporting Succession Planning and Knowledge Transfer
1100 – 1215	Communication & Stakeholder Management Identifying Internal and External Stakeholders • Tailoring Reliability Messages for Executives, Managers and Frontline Employees • Conducting Effective Meetings, Shift Handovers and Performance Reviews • Communicating Technical Findings through Concise, Evidence-Based Reports
1215 – 1230	Break



1230 – 1330	Change Management Assessing Organizational Readiness for Reliability Improvement • Building Sponsorship and Stakeholder Commitment • Managing Resistance and Reinforcing Desired Behaviors • Measuring Adoption, Performance and Sustainability of Change
1330 – 1420	Teams, Contractors & Labor Relations Building Effective Cross-Functional Reliability Teams • Selecting, Onboarding and Managing Maintenance Contractors • Establishing Service Levels, Performance Requirements, and Governance • Resolving Conflict and Maintaining Productive Workplace Relationships
1420 – 1430	Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow
1430	Lunch & End of Day Four

Day 5: Work Management

0730 – 0830	Work Identification & Prioritization Creating Complete and Accurate Maintenance Work Requests • Screening, Validating and Approving Requested Work • Assigning Priorities Based on Risk, Criticality and Business Impact • Managing Emergency, Corrective, Preventive and Improvement Work
0830 – 0930	Maintenance Planning Defining Job Scope and Technical Requirements • Developing Task Steps, Labor Estimates and Craft Requirements • Identifying Parts, Tools, Permits, Drawings and Safety Controls • Building Reusable Job Plans and Planning Libraries
0930 – 0945	Break
0945 – 1100	Scheduling & Resource Coordination Developing Weekly and Daily Maintenance Schedules • Matching Work with Labor, Materials, Tools and Equipment Availability • Managing Backlog Size, Age, Readiness and Schedule Loading • Coordinating Maintenance with Production and Operating Requirements
1100 – 1215	Work Execution & Control Conducting Job Briefings and Confirming Work-Site Readiness • Applying Safe-Work Procedures, Permits, and Isolation Requirements • Managing Schedule Interruptions, Break-In Work, and Emergency Response • Capturing Completion Details, Actual Hours, Parts Usage and Failure Information
1215 – 1230	Break
1230 – 1300	Materials, Spare Part & Contractor Management Classifying Critical, Insurance, Repairable and Consumable Spares • Setting Stocking Levels, Reorder Points and Service-Level Targets • Controlling Reservations, Staging, Kitting, Preservation and Returns • Coordinating Contractor Scope, Safety, Quality, Cost and Performance



1300 – 1345	CMMS, Performance Review & Examination Preparation <i>Establishing Functional Locations, Asset Hierarchies, and Equipment Records • Maintaining Work-Order, Failure-Code, Parts, and Labor Data Quality • Reviewing Schedule Compliance, Backlog, Wrench Time and Work Effectiveness • Integrating the Five Pillars Through Scenario Questions and a Practice Assessment</i>
1345 – 1400	Course Conclusion <i>Using this Course Overview, the Instructor(s) will Brief Participants about the Course Topics that were Covered During the Course</i>
1400 – 1415	POST-TEST
1415 – 1430	<i>Presentation of Course Certificates</i>
1430	<i>Lunch & End of Course</i>

MOCK Exam

Upon the completion of the course, participants have to sit for a MOCK Examination similar to the exam of the Certification Body through Haward's Portal. Each participant will be given a username and password to log in Haward's Portal for the MOCK exam during the 60 days following the course completion. Each participant has only one trial for the MOCK exam within this 60-day examination window. Hence, you have to prepare yourself very well before starting your MOCK exam as this exam is a simulation to the one of the Certification Body.

Practical Sessions

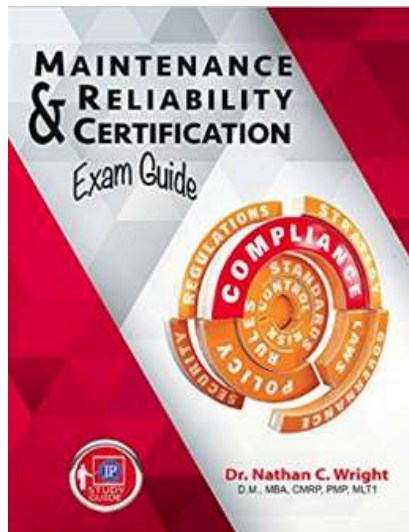
This practical and highly-interactive course includes real-life case studies and exercises:-





Book(s)

As part of the course kit, the following e-book will be given to all participants:



Title : Maintenance & Reliability Certification Exam Guide
ISBN : 9780831136239
Author : Dr. Nathan C. Wright
Publisher : Industrial Press, Inc.

Course Coordinator

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