



COURSE OVERVIEW RE0573

Best Practices in Maintenance Management & Cost Control

Course Title

Best Practices in Maintenance Management & Cost Control

Course Date/Venue

Session 1: February 11-15, 2024/Oryx Meeting Room, Doubletree By Hilton Doha- Al Sadd, Doha, Qatar

Session 2: March 03-07, 2024/The Mouna Meeting Room, The H Dubai Hotel, Sheikh Zayed Rd - Trade Centre, Dubai, UAE

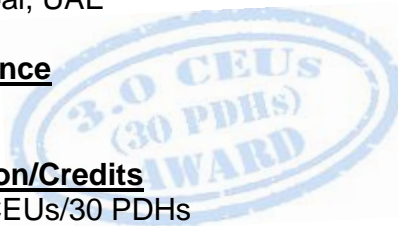


Course Reference

RE0573

Course Duration/Credits

Five days/3.0 CEUs/30 PDHs



Course Description



This practical and highly-interactive course includes practical sessions and exercises. Theory learnt will be applied using our state-of-the-art simulators.

This course is designed to provide participants with a detailed and up-to-date overview of the best practices in maintenance management and cost control. It covers the best practices of maintenance and reliability; the planning and scheduling of work management; the materials, parts and inventory management; the measurement and design of reliability and maintainability; the role of operations, TPM, 5S and metrics in performance measures; the optimization of PM, management of performance and workforce; the maintenance and reliability (M&R) analysis tools; and reliability estimation and application.



During this interactive course, participants will learn the life cycle cost, the importance and use of budgeting in organizations and the budget allocation problem; the risk issues in maintenance budgeting; the maintenance budget preparation and control; the cost engineering, management and maintenance cost control; the maintenance best practices with a profit-centered approach; the profit-and customer-centered maintenance operation; the development of CMMS as a true maintenance business management system; the profit-and customer-centered maintenance operation; the validation best practice results with the maintenance excellence index; and the development and implementation of a profit-centered action plan.



Course Objectives

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

- Apply systematic techniques on best practices in maintenance management and cost control
- Carryout best practices of maintenance and reliability
- Plan and schedule work management as well as apply materials, parts and inventory management
- Measure and design reliability and maintainability and identify the role of operations, TPM, 5S and metrics in performance measures
- Optimize PM and manage performance and workforce
- Recognize maintenance and reliability (M&R) analysis tools as well as employ reliability estimation and application
- Interpret life cycle cost, the importance and use of budgeting in organizations and the budget allocation problem
- Identify the risk issues in maintenance budgeting as well as employ maintenance budget preparation and control
- Carryout cost engineering and management and maintenance cost control
- Maximize maintenance best practices with a profit-centered approach
- Determine profit-and customer-centered maintenance operation and develop CMMS as a true maintenance business management system
- Operate profit-and customer-centered maintenance and validate best practice results with the maintenance excellence index
- Develop and implement a profit-centered action plan as well as achieve PRIDE in maintenance

Exclusive Smart Training Kit - H-STK®



*Participants of this course will receive the exclusive “Haward 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 on the best practices in maintenance management & cost control for maintenance managers, maintenance engineers, maintenance supervisors, maintenance foremen, asset managers, housing services supervisors, property managers, maintenance & engineering consultants, project managers and those who are involved in maintenance and operations (M&O) in consultant, contractor or operating companies.

Accommodation


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

Course Certificate(s)

Internationally recognized certificates will be issued to all participants of the course who completed a minimum of 80% of the total tuition hours.

Certificate Accreditations

Certificates are accredited by the following international accreditation organizations:


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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.

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British Accreditation Council (BAC)

Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. 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.

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. Pete Du Plessis is a **Senior Mechanical & Maintenance Engineer** with over **35 years** of extensive experience within **Oil, Gas** and **Petrochemical** industries. His expertise includes Maintenance of **Rotating Equipment**, Fundamentals of **Rotating Equipment** Measurements and Machinery Reliability, **Rotating Machinery Best Practices**, **Alignment of Rotating Equipment**, Operation & Maintenance of **Rotating Equipment**, **Rotating Equipment Reliability Optimization & Continuous Improvement**, **Material Cataloguing**, **Mechanical & Rotating Equipment Troubleshooting & Maintenance**, **Rotating Equipment for Process Industry**, **Pressure Safety Valve (PSV)**, **Pressure Relief Valve (PRV)**, **Security Valves**, **PRV & POPRV Operation**, **PRV Repair & Disassembly**, **Valve Components**, **Valve Troubleshooting**, **Valve Actuators**, **Valve Seals & Packing**, **Pumps**, **Compressors**, **Bearings**, **Lubrication**, **Root Cause Analysis**, **Maintenance Management**, **Maintenance Planning**, **Shutdown & Turnaround**, **Mechanical Troubleshooting**, **Preventive & Predictive Maintenance**, **Process Plant Shutdown & Turnaround**, **Maintenance Optimization & Best Practices**, **Maintenance Auditing & Benchmarking**, **Reliability Management**, **Reliability Centered Maintenance Principles & Application**, **Efficient Shutdowns**, **Machinery Lubrication**, **Maintenance Planning & Scheduling**, **Coupling & Shaft Alignment Techniques**, **Optimizing Equipment Maintenance & Replacement Decisions**, **Maintenance Management & Cost Control**, **Preventive & Predictive Maintenance**, **Effective Reliability Maintenance & Superior Maintenance Strategies**, **Integrity & Asset Management Certificate**, **Reliability, Availability & Maintainability (RAM)**. Previously, he was the **Quality Manager** of **Benteler Automotive**, where he was responsible for implementing, controlling and managing quality and technical department processes and systems and mobilizing the quality control department, procedures and quality management system.

During his career life, Mr. Plessis has worked with several prestigious companies occupying numerous challenging managerial and technical positions such as being the **Training & Development Manager**, **Finance Manager**, **Operations Manager & Trainer**, **Technical Trainer**, **Quality Manager**, **Supplier Manager**, **Logistics & Purchasing Manager**, **Contract Manager**, **Production & Material Planning Manager**, **Project Manager**, **Mechanical Engineer**, **Maintenance Planner**, **Reliability Engineer**, **Engineering Manager & Trainer**, **Metrologist**, **Consultant**, **Quality Control Inspector**, **Fitter & Machinist**, **Apprentice Fitter** and **Part-time Instructor**. All throughout his career, he has mastered and specialized in the application of project management, warehouse & inventory control, value chain analysis, logistics & strategic planning, process flow analysis, business process evaluation & re-engineering, master-plan development, capacity planning and site space-planning & development.

Mr. Plessis has a **Master's Management Diploma** and a **Bachelor's** degree with **Honours** in **Industrial Engineering & Management**. Further, he has gained **Diploma in Quality Management** as well as in **Production Management**. He is also a **Certified Assessor & Moderator** with the Manufacturing, Engineering & Related Services Education and Training Authority (MERSETA), a **Certified Trainer/Assessor** by the **Institute of Leadership & Management (ILM)** and a **Certified Instructor/Trainer** by the APICS.

Training Methodology

All our Courses are including **Hands-on Practical Sessions** using equipment, State-of-the-Art Simulators, Drawings, Case Studies, Videos and Exercises. The courses include the following training methodologies as a percentage of the total tuition hours:-

- 30% Lectures
- 20% Practical Workshops & Work Presentations
- 30% Hands-on Practical Exercises & Case Studies
- 20% Simulators (Hardware & Software) & Videos

In an unlikely event, the course instructor may modify the above training methodology before or during the course for technical reasons.

Course Fee

Doha	US\$ 6,000 per Delegate. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Dubai	US\$ 5,500 per Delegate + VAT . This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Course Program

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

Day

0730 – 0800	Registration & Coffee
0800 – 0815	Welcome & Introduction
0815 – 0830	PRE-TEST
0830 – 0900	Introducing Best Practices What is a Best Practice? • Understanding Maintenance & Reliability • Examples of Maintenance & Reliability Benchmarks • Basic Test on Maintenance & Reliability Knowledge • Key Terms & Definitions
0900 – 0930	Work Management: Planning & Scheduling Work Flow & Roles • Planning Process • Scheduling Process • Turnaround & Shutdowns • Measures of Performance
0930 – 0945	Break
0945 – 1100	Materials, Parts & Inventory Management Types of Inventory • Physical Layout & Storage Equipment • Optimizing Tools & Techniques • Performance Measure & Indicators
1100 – 1230	Measuring & Designing for Reliability & Maintainability Defining & Measuring Reliability & Other Terms • Designing & Building for Maintenance & Reliability
1230 – 1245	Break
1245 – 1330	The Role of Operations The Role of Operations • Total Productive Maintenance (TPM) • Workplace Organization: 5S • Performance Measures: Metrics
1330 – 1420	Maintenance Optimization Understanding Failure • PM Optimizing Tools
1420 – 1430	Recap
1430	Lunch & End of Day One



Day 2

0730 – 0830	Managing Performance Identifying Performance Measures • Benchmarking & Benchmarks • Data Collection & Data Quality
0830 – 0930	Workforce Management Employee Life Cycle • Understanding the Generation Gap • People Development • Workforce Management
0930 – 0945	Break
0945 – 1100	M & R Analysis Tools Analysis Tools • Computerize Maintenance Management System
1100 – 1200	Reliability Estimation & Application Redundancy • Burn-In Testing • Preventive Maintenance Analysis • Reliability Allocation • Reliability Growth Testing • Repairable System Analysis • Multiple Censored Data Exercise
1230 – 1245	Break
1245 – 1315	Life Cycle Cost Objectives, Functions, & Processes • The Economics of Reliability & Maintainability & System Design • Organizational Considerations • Data Sources & Data Collection Methods
1315 – 1420	Maintenance Budget The Importance and Use of Budgeting in Organizations • The Budget Allocation Problem • Budget Dependence Theory • Budget Loading/Leveling • Budget Periods • Various Types of Budgets
1420 – 1430	Recap
1430	Lunch & End of Day Two

Day 3

0730 – 0830	Identifying Risk Issues in Maintenance Budgeting Risk Identification and Mapping • Measuring the Potential Impact of Each Budget Allocation Risk • Cost Benefit Analysis • Risk Prevention Strategy and the Employment of a Risk Register for Budget Allocation
0830 – 0930	Maintenance Budget Preparation & Control Identifying Role Players in Budgeting • Overseeing the Budget Cycle of Planning, Approval, Execution and Control • Preparing Different Types of Budgets • Constrained Resource Scheduling
0930 – 0945	Break
0945 – 1015	Cost Engineering & Management Overview of Project Cost Management • Project Life Cycles • Cost Estimating and the Project Life Cycle • Project Cost Management Processes
1015 – 1100	Maintenance Cost Control Cost Baseline • Project Funding Requirements • Performance Reports • Work Performance Information • Approved Change Requests
1100 – 1230	Maintenance Cost Control (cont'd) Project Management Plan • Cost Change Control System • Performance Measurement Analysis • Earned Value Analysis • Variance Analysis
1230 – 1245	Break
1245 – 1330	Maintenance Cost Control (cont'd) Forecasting • Project Performance Reviews • Project Management Software • Variance Management • Cost Estimates (Updates) • Cost Baseline (Updates) • Performance Measurements





1330 – 1420	Maintenance Cost Control (cont'd) Forecasted Completion • Requested Changes • Recommended Corrective Actions • Organization Process Assets (Updates) • Project Management Plan Updates)
1420 – 1430	Recap
1430	Lunch & End of Day Three

Day 4

0730 – 0830	Maximizing Maintenance Best Practices with a Profit-Centered Approach A Profit-and Customer-Centered Maintenance Strategy • Key Requirements for Profit-and Customer-Centered Maintenance
0830 – 0930	Maximizing Maintenance Best Practice with a Profit-Centered Approach (cont'd) Four Real Maintenance Challenges We All Face
0930 – 0945	Break
0945 – 1100	Determining Where You are as a Profit-and Customer-Centered Maintenance Operation: The Scoreboard for Maintenance Excellence The Scoreboard for Maintenance Excellence • Guidelines for Conducting a Scoreboard for Maintenance Excellence Assessment
1100 – 1230	Determining Where You Are as A Profit-And Customer-Centered (cont'd) Strategy for Developing a Corporate-Wide Scoreboard • Case Study: The Scoreboard Self-Assessment: Just Do It
1230 - 1245	Break
1245 – 1330	Developing Your CMMS as a True Maintenance Business Management System Maximizing the Value of CMMS for Profit-Centered Maintenance • CMMS Functional Requirements that Support the Business of Maintenance • Case Study: Quantitative & Qualitative Factors for CMMS Selection
1330 – 1420	Developing Your CMMS as a True Maintenance Business Management System (cont'd) Maximizing Your IT Investment with the CMMS Benchmarking System • Case Study: Effective CMMS Plus Best Practices: A Powerful Combination for Profit at Argentina's Largest Steel Maker
1420 – 1430	Recap
1430	Lunch & End of Day Four

Day 5

0730 – 0830	The Profit-and Customer-Centered Maintenance Operation Improving Craft Productivity: An Essential Strategy for Profit & Customer Service • Introducing OCE as a New Buzzword: The Overall Craft Effectiveness (OCE) Factor • The ACE Team Benchmarking Process: A New Benchmarking Tool • Profit-and Customer-Centered Best Practices • Maintenance Quality & Customer Service
0830 – 0930	The Profit-and Customer-Centered Maintenance Operation (cont'd) Case Study-Critical Asset Facilitation: A Lesson Learned at Boeing Commercial Airplane Group • PRIDE in Ownership with Operator-Base Maintenance • Case Study: Developing an Effective Preventive Maintenance Strategy • Today's Predictive Maintenance Technology : Key to Continuous Reliability Improvement • Auto Identification Strategies to Support Maintenance Storeroom Excellence • Case Study: Planning for Maintenance Excellence in Action at Lucent Technologies



0930 – 0945	Break
0945 – 1100	Validating Best Practice Results with the Maintenance Excellence Index Determine & Quantify Benefits & Gained Value • Developing your Maintenance Excellence Index to Validate Results
1100 – 1230	Validating Best Practice Results with the Maintenance Excellence Index (cont'd) Non Traditional Return on Investment for Improving Your Maintenance Return on Investment
1230 – 1245	Break
1245 – 1300	The Journey Toward Maintenance Excellence Developing and Implementing a Profit –Centered Action Plan • Achieving PRIDE in Maintenance
1300 – 1345	The Journey Toward Maintenance Excellence (cont'd) The Journey Towards Maintenance Excellence: Where Will You Go Now?
1345 – 1400	Course Conclusion
1400 – 1415	POST-TEST
1415 – 1430	Presentation of Course Certificates
1430	Lunch & End of Course

Simulator (Hands-on Practical Sessions)

Practical sessions will be organized during the course for delegates to practice the theory learnt. Delegates will be provided with an opportunity to carryout various exercises using “MS Project”.



Course Coordinator

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