



COURSE OVERVIEW RE0200(EC2) Maintenance Management, CMMS, KPI, Planning Budgeting & Cost Reports

Course Title

Maintenance Management, CMMS, KPI, Planning, Budgeting & Cost Reports

Course Date/Venue

Session 1: February 16-20, 2025/Business Meeting, Crowne Plaza Al Khobar, Al Khobar, KSA

Session 2: August 17-21, 2025/Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE



Course Reference

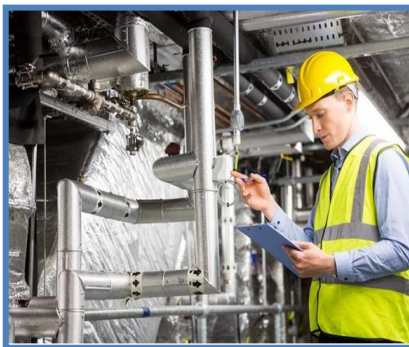
RE0200(EC2)



Course Duration/Credits

Five days/3.0 CEUs/30 PDHs

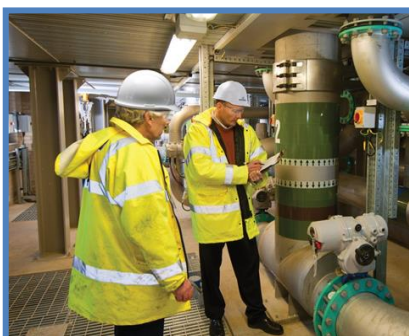
Course Description



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



Maintenance planning, scheduling and work control are the most important elements in modern maintenance management. Maintenance planning and scheduling are also synonymous with control of maintenance. Further, maintenance planning and scheduling of work orders in addition to the control of such work are considered as the hub of a well functioning maintenance organization. In order for maintenance planning and scheduling to work many other systems need to work well. Most importantly equipment inspections through preventive maintenance, technical database such as bill of materials, work order history, and standard job plans. Maintenance spare part stores have to function well, see the above illustration picture.



In a world where sustainable cost-effectiveness and productivity is paramount, your focus is on increasing company revenue by enhancing the performance of your physical assets. Are you up to the challenge? Maintenance Management and plays a critical part within Physical Asset Management. By understanding the fundamental processes behind this strategy you will be able to identify the essential responsibilities you need to undertake in order to initiate a Maintenance Planning, Scheduling and Control program. But Maintenance Planning and Scheduling is not effective unless a strong reliability culture exists and reliability principles are understood and applied.





This course is designed to provide participants with a detailed and up-to-date overview of maintenance planning. It covers the maintenance classification and maintenance management process; the preventive predictive maintenance, predictive maintenance techniques, proactive and reactive maintenance; the PM & RFT policies, advanced maintenance policies, criticality analysis and reliability excellence; the CMMS benefits, work management, work request and work order tracking; the CM work order, PM work order, work order completion process and controlling maintenance work; the backlog monitoring, inventory control, asset management, work management and planning; and the overall equipment effectiveness (OEE), total effective equipment performance (TEEP) and benching.

During this interactive course, participants will learn to manage using KPI's and identify the difference between hazard and risk as well as ALARP, safety plan and JSEA; recognize the difference between hazard and risk, ALARP, safety plan and JSEA; apply maintenance activities management; carryout time management, progress report, work completion and reporting; review maintenance budget and cost reports, calculate oil and fuel consumption, manage spare parts and classify materials; define the meaning of lead time, criticality of utilization and law of pareto; and identify the index of rotation (LIR & NIR), spare parts tests and stock handling costs as well as the stock ordering costs and economical order quantity (EOQ).

Course Objectives

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

- Get certified as a “*Certified Maintenance Planner*”
- Carryout maintenance classification and maintenance management process
- Employ preventive predictive maintenance, predictive maintenance techniques, proactive and reactive maintenance
- Discuss PM & RFT policies, advanced maintenance policies, criticality analysis and reliability excellence
- Explain the CMMS benefits, work management, work request and work order tracking
- Describe CM work order, PM work order, work order completion process and controlling maintenance work
- Apply backlog monitoring, inventory control, asset management, work management and planning
- Define overall equipment effectiveness (OEE), total effective equipment performance (TEEP) and benching
- Manage using KPI's and discuss the difference between hazard and risk as well as ALARP, safety plan and JSEA
- Perform maintenance activities management covering works scope development and work package preparation





- Implement time management, progress report, work completion and reporting
- Review maintenance budget and cost reports, calculate oil and fuel consumption, manage spare parts and classify materials
- Discuss the meaning of lead time, criticality of utilization and law of pareto
- Recognize index of rotation (LIR & NIR), spare parts tests and stock handling costs
- Identify stock ordering costs and economical order quantity (EOQ)

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 in maintenance planning for plant maintenance engineers, planning engineers, maintenance planners and maintenance coordinators.

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

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.

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. Steve Magalios, CEng, PGDip (on-going), MSc, BSc, is a **Senior Mechanical & Maintenance Engineer** with almost **40 years** of extensive **On-shore/Offshore** experience in the **Oil & Gas, Construction, Refinery and Petrochemical** industries. His expertise widely covers in the areas of **Preventive & Predictive Maintenance, Reliability Centered Maintenance, Applied Maintenance Management, Reliability Modelling, Reliability Techniques, Reliability Design Techniques, Advanced Root Causes Analysis & Techniques, Reliability Management, Pipeline Hot Tapping, Hot Tapping Equipment, Hot Tapping Operation, Welding Engineering, Fabrication & Inspection, Welding Techniques, Practical Welding Technology, Welding Inspection, Welding & Machine Shop, Welding & Machining, Welding Types & Applications, Welding Safety, Welding Defects Analysis, TIG & Arc Welding, Shielded Metal Arc Welding, Gas Tungsten & Gas Metal Arc Welding, Welding Procedure Specifications & Qualifications (WPS & WPQ), Aluminium Welding, Safe Welding, International Welding Codes, Welding Procedure Specifications, Welding & Brazing, Welder Performance Qualification, Pipeline Operation & Maintenance, Pipeline Systems, Pipeline Design & Construction, Pipeline Repair Methods, Pipeline Engineering, Pipeline Integrity Management System (PIMS), Pipeline Pigging, Piping & Pipe Support Systems, Piping Systems & Process Equipment, Piping System Repair & Maintenance and Piping Integrity Management**. Further, he is also well-versed in **Computer Aided Design (CAD), Building & Road Design Skills, Civil Engineering Design, Structural Reliability Engineering, Road Construction & Maintenance, Concrete Structures & Building Rehabilitation, Reinforced Concrete Structures Protection, Geosynthetics & Ground Improvement Methods, Blueprint Reading & Interpretation, Blue Print Documentation, Mechanical Drawings, P&ID, Flow Diagram Symbols, Land Surveying & Property Evaluation, Cartographic Representation, Soil Classification, Cadastral Surveying & Boundary Definition, Project Engineering & Design, Construction Management, Project Planning & Execution, Site Management, Site Supervision, Effective Resource Management, Project Evaluation, FEED Management, EPC Projects Design, Project Completion & Workover, AutoCAD, STAAD-PRO, GIS, ArcInfo, ArcView, Autodesk Map** and various programming languages such as **FORTRAN, BASIC and AUTOLISP**. Currently, he is the **Chartered Professional Surveyor Engineer & Urban-Regional Planner** wherein he is deeply involved in providing exact data, measurements and determining properly boundaries. He is also responsible in preparing and maintaining sketches, maps, reports and legal description of surveys.

During his career, Mr. Magalios has gained his expertise and thorough practical experience through challenging positions such as a **Project Site Construction Manager, Supervision Head/Construction Manager, Construction Site Manager, Project Manager, Deputy PMS Manager, Head of the Public Project Inspection Field Team, Technical Consultant, Senior Consultant, Consultant/Lecturer, Construction Team Leader, Lead Pipeline Engineer, Project Construction Lead Supervising Engineer, Lead Site Engineer, Senior Site Engineer Lead Engineer, Senior Site Engineer, R.O.W. Coordinator, Site Representative, Supervision Head, Contractor, Client Site Representative and Acting Client Site Representative** for international Companies such as the **Public Gas Corporation, Penspen International Limited, Eptista Servicios de Ingenieria S.I., J/V ILF Pantec TH. Papaioannou & Co. – Emenergy Engineering, J/V Karaylannis S.A. – Intracom Constructions S.A., Ergaz Ltd., Alkyonis 7, Palaeo Faliro, Piraeus, Elpet Valkaniki S.A., Asprofos S.A., J/V Depa S.A.** just to name a few.

Mr. Magalios is a **Registered Chartered Engineer** and has **Master and Bachelor** degrees in **Surveying Engineering** from the **University of New Brunswick, Canada** and the **National Technical University of Athens, Greece**, respectively. Further, he is currently enrolled for **Post-graduate** in **Quality Assurance** from the **Hellenic Open University, Greece**. He has further obtained a **Level 4B Certificates** in **Project Management** from the **National & Kapodistrian University of Athens, Greece** and **Environmental Auditing** from the **Environmental Auditors Registration Association (EARA)**. Moreover, he is a **Certified Instructor/Trainer, a Chartered Engineer** of **Technical Chamber of Greece** and has delivered numerous trainings, workshops, seminars, courses and conferences internationally.





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 1

0730 – 0800	Registration & Coffee
0800 – 0815	Welcome & Introduction
0815 – 0830	PRE-TEST
0830 – 0930	General Definitions Overview on Maintenance • Maintenance Classification (Cost, Priorities, Policies) • Maintenance Management Process • Preventive Predictive Maintenance (PM & Pd.M) • Predictive Maintenance Techniques
0930 – 0945	Break
0945 – 1100	General Definitions (cont'd) Proactive & Reactive Maintenance • PM & RTF Policies • Advanced Maintenance Policies (RBI & RCM) • Criticality Analysis • Reliability Excellence • Case Studies (Maintenance Planning & Difference Between Maintenance Planning & Scheduling)
1100 – 1230	Overview on CMMS & ERP What should CMMS do & CMMS Benefits • Overview on Work Management • Work Request • Work Order Tracking • CM Work Order • PM Work Order • Work Order Completion Process • Controlling Maintenance Work • Understand Backlog
1230 – 1245	Break
1245 – 1420	Overview on CMMS & ERP (cont'd) Backlog Route Cause • Backlog Monitoring • Inventory Control & Waiting Material Follow Up • CMMS in Asset Management & Work Management & Planning • Overview on MAXIMO • Practical Workshop (How to Calculate Manpower Size, How to Calculate Maintenance Cost & Work Load Distribution) • Causes of Equipment Failures • Understand the Failure Code Hierarchy • Overview on Failure Classes & Problem & Cause & Remedy
1420 – 1430	Recap
1430	Lunch & End of Day One

Day 2

0730 – 0930	Manage Using KPI's What is the Overall Equipment Effectiveness (OEE)? • What is Total Effective Equipment Performance (TEEP)? • Workshop to Calculate KPI's, OEE & TEEP
0930 – 0945	Break
0945 – 1100	Manage using KPI's (cont'd) What is Benchmark? • Manage Using Audit
1100 – 1230	Manage using KPI's (cont'd) Understand the Difference Between Hazard & Risk • Risk Management ALARP
1230 – 1245	Break
1245 – 1420	Manage using KPI's (cont'd) Overview on Safety Plan • Overview on JSEA
1420 – 1430	Recap
1430	Lunch & End of Day Three





Day 3

0730 – 0930	Maintenance Activities Management Works Scope Development & Work Package Preparation
0930 – 0945	Break
0945 – 1100	Maintenance Activities Management (cont'd) Procedures (Resources Estimations: Manpower & Tools & Material, Building a Job Plan, Material Requisitions & Purchase Requisitions, Overview on Safety Plan: Hazards, Precautions & JSEA & PTW)
1100 – 1230	Maintenance Activities Management (cont'd) Time Management (Scheduling) (Estimated Time, Critical Path Analysis, Pert & Gantt Diagrams, Milestones & Possible Causes of Delay)
1230 – 1245	Break
1245 – 1420	Maintenance Activities Management (cont'd) Progress Report (S-Curve)
1420 – 1430	Recap
1430	Lunch & End of Day Two

Day 4

0730 – 0930	Maintenance Activities Management (cont'd) Work Completion & Reporting • Analysis & Improvement
0930 – 0945	Break
0945 – 1100	Maintenance Activities Management (cont'd) Shutdown Case Study
1100 – 1230	Maintenance Activities Management (cont'd) Maintenance Contracts
1230 – 1245	Break
1245 – 1420	Maintenance Activities Management (cont'd) Outsourcing Strategy & Contractor Management
1420 – 1430	Recap
1430	Lunch & End of Day Three

Day 5

0730 – 0930	Maintenance Budget & Cost Reports Workshop to Calculate Oil & Fuel Consumption • Spare Parts Management • Material Classifications
0930 – 0945	Break
0945 – 1100	Maintenance Budget & Cost Reports (cont'd) Understand the Meaning of Lead Time • Criticality of Utilization • Law of Pareto
1100 – 1215	Maintenance Budget & Cost Reports (cont'd) Index of Rotation (LIR & NIR) • Spare Parts Tests • Stock Holding Costs
1215 – 1230	Break
1230 – 1345	Maintenance Budget & Cost Reports (cont'd) Stock Ordering Costs • Economical Order Quantity (EOQ) • Workshop to Calculate EOQ & Reorder Level
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 the “MS Project” and “Mindview Software”.



Mindview Software

Course Coordinator

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