COURSE OVERVIEW RE0708
Building & Facilities Maintenance Management

Course Title
Building & Facilities Maintenance Management

Course Date/Venue
Session 1: April 06-10, 2025/Tamra Meeting Room, Al Bandar Rotana Creek, Dubai UAE
Session 2: September 22-26, 2025/Glasshouse Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE

Course Reference
RE0708

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.

This course is designed to provide participants with a detailed and up-to-date knowledge on housing and facilities maintenance management. The concept of maintenance dimension including the demand for construction work, building maintenance in the construction industry, government policy and maintenance cost trends and the maintenance organizations which comprises of the context within which maintenance exists as well as its maintenance policy framework and other issues.

The course will also discuss the design /maintenance relationship considering their performance requirements, construction, life cycle costing and maintenance feedback; the nature of maintenance work and its various types, classification and applications; the principle of information management used in building and facilities; the maintenance planning methodology and maintenance contracts.

At the completion of the course, participants will be able to, employ techniques in cost estimating and budgeting; carryout cost-based maintenance decisions; describe the process of the maintenance workload including planned and unplanned maintenance work and the work identification process; demonstrate the method of evaluating and executing maintenance work; and employ preventive maintenance on buildings and facilities.

Course Objectives

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

- Apply systematic techniques in building and facilities maintenance management and review the universal maintenance goals and objectives
- Illustrate the concept of maintenance dimension including the demand for construction work, building maintenance in the construction industry, government policy and maintenance cost trends
- Analyze the maintenance organizations which comprises of the context within which maintenance exists as well as its maintenance policy framework and other issues
- Determine the design/maintenance relationship considering their performance requirements, construction, life cycle costing and maintenance feedback
- Describe the nature of maintenance work and identify its various types, classification and applications
- Discuss the principle of information management used in building and facilities and introduce information systems
- Improve maintenance planning methodology by reviewing its principles, techniques and programmes
- Apply and gain an in-depth knowledge on maintenance contracts including the types of service contracts, contractor selection and documentation and jobbing agreement
- Employ techniques in cost estimating and budgeting and recognize their importance in building and facilities maintenance management
- Carryout cost-based maintenance decisions including the present value and uniform annual cost methods, labor-saving devices and sensitivity analysis
- Describe the process of the maintenance workload including planned and unplanned maintenance work and the work identification process
- Demonstrate the method of evaluating and executing maintenance work and recognize the importance of controlling the maintenance effort
- Discuss the principles of computerized maintenance management including its system parts, program features and hardware considerations
- Employ preventive maintenance on buildings and facilities and identify preventive maintenance needs and order

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 provides an overview of all significant aspects and considerations of buiding and facilities maintenance management for engineers, supervisors, superintendents, managers and scientists involved in design, construction, assessment, repair and maintenance of a wide range of public and industrial facilities. Personnel from authorities and major facilities operating companies will also benefit for attending this course.

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: -

- 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.

- 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 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 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. Andrew Ladwig is a **Senior Process & Mechanical Maintenance Engineer** with over **25 years** of extensive experience within the **Oil & Gas**, **Refinery**, **Petrochemical & Power** industries. His expertise widely covers in the areas of **Maintenance Planning**, **Maintenance & Reliability** Management, **Material Cataloguing**, **Equipment** Maintenance, Root Cause Failure Analysis (**RCFA**), **Rotating Machinery** Troubleshooting, **Maintenance Auditing & Benchmarking**, **Condition Monitoring** Techniques, **Machinery Lubrication** Technology, **Lubricant Oil & Grease** Testing & Analysis, **Crude Oil** Storage & Management, **Ammonia Manufacturing & Process** Troubleshooting, **Crude Oil** Distillation, **Distillation** Operation and Troubleshooting, **Ammonia Storage & Loading** Systems, **Fertilizer Storage** Management (Ammonia & Urea), **Sulphur Recovery**, **Nitrogen Fertilizer** Production, **Refining Process &** Petroleum Products, Safe **Refinery Operations**, **Hydrotreating & Hydro-processing**, **Fractionation**, **Process Plant** Operations, **Storage Tanks** Operations & Measurements, **Process Plant** Troubleshooting & Engineering Problem Solving, **Process Plant** Performance, **Process Troubleshooting** Techniques, **Pressure Vessel** Operation, **Process Equipment** Performance & Troubleshooting, **Plant Startup & Shutdown** and **Flare & Relief** System. Further, he is also well-versed in **Compressors & Turbines** Maintenance, **Heat Exchanger** Overhaul & Testing Techniques, Balancing of **Rotating Machinery** (**BRM**), **Pipe Stress** Analysis, **Valves & Actuators** Technology, **Control Valve** Engineering, **Tank Design**, **Material Cataloguing**, Specifications, Handling & Storage, **Steam Trap** Design, Operation, Maintenance & Troubleshooting, **Steam Trapping & Control**, **Column**, **Pump & Exchangers**, Troubleshooting & Design, **Detailed Engineering Drawings**, Codes & Standards, **Production Optimization**, Permit to Work (**PTW**), Project Engineering, **Data** Analysis, **Process Hazard** Analysis (**PHA**), **HAZOP** Study, Sampling & Analysis, **Training** Analysis, **Job Analysis** Techniques, Storage & Handling of **Toxic Chemicals & Hazardous Materials**, **Hazardous Material** Classification & Storage/Disposal, **Dangerous Goods**, Environmental Management System (**EMS**), Supply Chain, Purchasing, Procurement, **Logistics** Management & **Transport** & **Warehousing** & **Inventory**, **Risk** Monitoring Authorized Gas Tester (**AGT**), Confined Space Entry (**CSE**), Personal Protective Equipment (**PPE**), Fire & Gas, First Aid and Occupational Health & Safety.

During his career life, Mr. Ladwig has gained his practical experience through his various significant positions and dedication as the **Mechanical Engineer**, **Project Engineer**, **Reliability & Maintenance Engineer**, **Maintenance Support Engineer**, **Process Engineer**, **HSE Supervisor**, **Warehouse Manager**, **Quality Manager**, **Business Analyst**, **Senior Process Controller**, **Process Controller**, **Safety Officer**, **Mechanical Technician**, **Senior Lecturer** and **Senior Consultant/Trainer** for various companies such as the Sasol Ltd., Sasol Wax, Sasol Synfuels, just to name a few.

Mr. Ladwig has a **Bachelor's** degree in **Chemical Engineering** and a **Diploma** in **Mechanical Engineering**. Further, he is a **Certified Instructor/Trainer**, a **Certified Internal Verifier/Assessor/Trainer** by the **Institute of Leadership & Management** (**ILM**) and has delivered various trainings, workshops, seminars, courses and conferences internationally.

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 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	***What is Facilities Maintenance Management?*** *Life Cycle Stages of a Facility ● Establishing Maintenance Activities ● Establishing Maintenance Objectives ● Direct Maintenance Work ● Indirect Work Elements ● Universal Maintenance Goals and Objectives*
0930 – 0945	*Break*
0945 – 1100	***The Maintenance Dimension*** *Maintenance Defined ● Demand for Construction Work ● The Supply of Construction Services ● The Structure of the Construction Industry ● Building Maintenance in the Construction Industry ● Government Policy and Maintenance*
1100 – 1215	***The Maintenance Dimension (cont'd)*** *Maintenance Needs ● Execution of Maintenance Work ● Building Maintenance and the Professions ● Education and Training for Building Maintenance ● Maintenance Cost Trends*
1215 – 1230	*Break*
1230 – 1420	***Maintenance Organizations*** *The Context within which Maintenance Exists ● Maintenance Policy Framework ● Maintenance Policy Issues ● The Business Organization ● The Building Maintenance Organization ● Functions of a Maintenance Department ● Typical Maintenance Organizations*
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

0730 – 0930	***The Design/Maintenance Relationship*** *Performance Requirements ● The Design Brief ● Design and Construction ● Life Cycle Costing ● Financial Appraisal Techniques ● The Construction Process ● Hand-Over and Commissioning ● Maintenance Feedback*
0930 – 0945	*Break*

0945 – 1100	***The Nature of Maintenance Work*** *Routine Maintenance ● Remedial Maintenance ● Classification of Maintenance ● Estate Records*
1100 – 1215	***The Nature of Maintenance Work (cont'd)*** *Condition Surveys ● Applications ● Statutory Requirements ● Obligations Under Tenancy Agreements*
1215 – 1230	*Break*
1230 – 1420	***Information Management*** *Introduction to Information Systems ● Maintenance Information Needs ● Maintenance Information Management ● Information Sources ● Classification and Coding of Maintenance Information*
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

0730 – 0930	***Maintenance Planning*** *Introduction to Planning Principles ● Maintenance Planning ● Planning Maintenance Programs ● Management Control*
0930 – 0945	*Break*
0945 – 1100	***Maintenance Contracts*** *When to Contract for Services ● Types of Service Contracts ● Building & Facilities Contracts Generally ● Writing Service Contracts ● Types of Services Typically Procured ● Contractor Selection ● Contract Documents ● Agreement for Minor Building Works ● Standard Form of Measured Term Contract ● A Standard Local Authority Form of Measured Term Contract ● Jobbing Agreement ● Contract Documentation*
1100 – 1215	***Cost Estimating and Budgeting*** *Elements of Maintenance Costs ● Labor Costs ● Materials, Parts and Supplies ● Tools and Equipment*
1215 – 1230	*Break*
1230 – 1420	***Cost Estimating and Budgeting (cont'd)*** *Overhead Costs ● Maintenance Management Salaries ● Unit Price Estimating Techniques ● Direct Maintenance Activities*
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

0730 – 0930	***Cost-Based Maintenance Decisions*** *Present Value Method ● Uniform Annual Cost Method ● Repair Versus Replacement Analysis ● Labor-Saving Devices*
0930 – 0945	*Break*
0945 – 1100	***Cost-Based Maintenance Decisions (cont'd)*** *Evaluating Reimbursable Modifications ● Evaluating Facility Improvement Projects ● Qualifying Subjective Analysis ● Sensitivity Analysis*

1100 – 1215	***Identifying the Maintenance Workload*** *Planned Maintenance Work ● Unplanned Maintenance Work ● The Work Identification Process*
1215 – 1230	*Break*
1230 – 1420	***Evaluating and Executing Maintenance Work*** *Evaluating Maintenance Work ● Project Priorities ● The Formal Evaluation Process ● Scheduling Maintenance Activities ● Directing the Work*
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

0730 – 0930	***Controlling the Maintenance Effort*** *Monitoring Maintenance Work ● Analyzing Maintenance Work ● Historical Cost Data*
0930 – 0945	*Break*
0945 – 1100	***Controlling the Maintenance Effort (cont'd)*** *Supplies and Spare Parts ● Inventory Control*
1100 – 1215	***Computerized Maintenance Management*** *Reasons for Computerization ● Standard Program Features ● System Options ● Hardware Considerations ● Selecting a System ● Implementing the System*
1215 – 1230	*Break*
1230 – 1345	***Preventive Maintenance*** *Levels of Maintenance ● Why Preventive Maintenance? ● Identifying Preventive Maintenance Needs ● The Preventive Maintenance Order*
1345 – 1400	***Course Conclusion*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Course Topics that were Covered During the Course*
1400 – 1415	***POST-TEST***
1415 – 1430	*Presentation of Course Certificates*
1430	*Lunch & End of Course*

Practical Sessions

This hands-on, highly-interactive course includes real-life case studies and exercises:-

Course Coordinator

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