



COURSE OVERVIEW RE0230 ISO 55001 Asset Management Awareness Training

Course Title

ISO 55001 Asset Management Awareness Training

Course Date/Venue

Session 1: April 20-24, 2025/Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE
Session 2: September 22-26, 2025/Fujairah Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE



Course Reference

RE0230

Course Duration/Credits

Five days/3.0 CEUs/30PDHs



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.

When properly executed, Physical Asset Management can significantly impact an organization's bottom line by reducing maintenance costs, increasing the economic life of capital equipment, reducing company liability, increasing the reliability of systems and components, and reducing the number of systems and components.



This course will provide participants with the tools and methodologies to achieve maintenance excellence in their organization. The course has been designed to help managers care for their assets efficiently and effectively through sound and timely decision-making.



Further, the course will also discuss the ISO 55000 including its elements, structure and requirements for an asset management system; the benefits of adopting ISO 55000 and how it align with other management systems; the roadmap to achieve certification and subsequent business improvement; the various approaches including HAZOP and risk-based inspection; the total productive maintenance (TPM), people-centric maintenance and quality improvement; the methodologies covering asset management of projects, quantum leaps in process improvement and supplier partnering program (SPP); and the failure process and age versus reliability patterns.



During this interactive course, participants will learn to optimize human and asset performance by focusing on behavior and results; carryout balance scorecards, benchmarking and key performance indicators; identify the basic economics and the aspects of discounted cash flow used in capital equipment replacement analysis; apply present-value calculation and recognize the effects of inflation in the analysis; estimate the interest rate appropriate for discounting; calculate the equivalent annual cost (EAC) and minimize life cycle cost; recognize basic statistics and the problem with uncertainty; optimize maintenance and replacement decisions covering network system reliability and maintenance tasks; employ reliability centered maintenance (RCM); and optimize condition based maintenance decisions.

Course Objectives

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

- Apply a proper physical asset management system in accordance with the ISO 55000/55001 standards in order to achieve a maintenance excellence position
- Discuss ISO 55000 including its elements, structure and requirements for an asset management system
- Explain the benefits of adopting ISO 55000 and how it align with other management systems
- Illustrate roadmap to achieve certification and subsequent business improvement
- Manage risk and apply the various approaches including HAZOP and risk-based inspection
- Manage reliability through people, total productive maintenance (TPM), people-centric maintenance and quality improvement
- Optimize methodologies covering asset management of projects, quantum leaps in process improvement and supplier partnering program (SPP)
- Define failure and identify failure process and age versus reliability patterns
- Optimize RCM results through root cause failure analysis (RCFA) and life cycle decisions
- Optimize human and asset performance by focusing on behavior and results
- Carryout balance score cards, benchmarking and key performance indicators
- Discuss basic economics and the aspects of discounted cash flow used in capital equipment replacement analysis
- Apply present-value calculation and identify the effects of inflation in the analysis
- Estimate the interest rate appropriate for discounting, calculate the equivalent annual cost (EAC) and minimize life cycle cost
- Recognize basic statistics and the problem with uncertainty
- Optimize maintenance and replacement decisions covering network system reliability and maintenance tasks
- Employ reliability centered maintenance (RCM) and optimize condition based maintenance decisions



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 provides an overview of all significant aspects and considerations of physical asset management for maintenance excellence for engineers, managers of plant operations, facility managers or maintenance professionals who are responsible for maintaining and managing the physical equipment assets of his plant as well as those who represent large facilities and plants from industries such as mining, oil and gas, pulp and paper, utilities, primary metals and heavy manufacturing. The course is a must for those in charge of implementing a physical asset management system in accordance with the ISO 55000/55001 standards.

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® (Howard 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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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.

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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.

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 Engineer** with over **25 years** of extensive experience within the **Oil & Gas, Refinery, Petrochemical & Power** industries. His expertise widely covers in the areas of **Ammonia Manufacturing & Process Troubleshooting, Distillation Towers, Crude Oil Distillation, Fundamentals of Distillation** for Engineers, **Distillation Operation and Troubleshooting, Advanced Distillation Troubleshooting, Distillation Technology, Vacuum Distillation, Ammonia Storage & Loading Systems, Ammonia Plant Operation, Troubleshooting & Optimization, Ammonia Recovery, Ammonia Plant Safety, Hazard of Ammonia Handling, Storage & Shipping, Operational Excellence in Ammonia Plants, Fertilizer Storage Management (Ammonia & Urea), Fertilizer**

Manufacturing Process Technology, Sulphur Recovery, Phenol Recovery & Extraction, Wax Sweating & Blending, Petrochemical & Fertilizer Plants, Nitrogen Fertilizer Production, Petroleum Industry Process Engineering, Refining Process & Petroleum Products, Refinery Planning & Economics, Safe Refinery Operations, Hydrotreating & Hydro-processing, Separators in Oil & Gas Industry, Gas Testing & Energy Isolations, Gas Liquor Separation, Industrial Liquid Mixing, Wax Bleachers, Extractors, Fractionation, Operation & Control of Distillation, Process of Crude ATM & Vacuum Distillation Unit, Water Purification, Water Transport & Distribution, Steam & Electricity, Flame Arrestors, Coal Processing, Environmental Emission Control, R&D of Wax Blending, Wax Molding/Slabbing, Industrial Drying, Principles, Selection & Design, Process Safety Design, Certified Process Plant Operations, Control & Troubleshooting, Operator Responsibilities, Storage Tanks Operations & Measurements, Tank Design, Construction, Inspection & Maintenance, Atmospheric Tanks, Process Plant Troubleshooting & Engineering Problem Solving, Process Plant Performance, Efficiency & Optimization, Continuous Improvement & Benchmarking, Process Troubleshooting Techniques, Oil & Gas Operation/Introduction to Surface Facilities, Pressure Vessel Operation, Plant & Equipment Integrity, Process Equipment Performance & Troubleshooting, Plant Startup & Shutdown, Startup & Shutdown the Plant While Handling Abnormal Conditions, Flare & Relief System, Process Gas Plant Start-up, Commissioning & Problem Solving, Process Liquid and Process Handling & Measuring Equipment. Further, he is also well-versed in **Compressors & Turbines Operation, Maintenance & Troubleshooting, **Heat Exchanger** Overhaul & Testing Techniques, Balancing of **Rotating Machinery (BRM)**, **Pipe Stress** Analysis, **Valves & Actuators** Technology, Inspect & Maintain **Safeguarding Vent & Relief System**, Certified Inspectors for **Vehicle & Equipment**, Optimizing **Equipment Maintenance & Replacement** Decisions, Certified Maintenance Planner (**CMP**), Certified Planning and Scheduling Professional (**AACE-PSP**), **Material Cataloguing**, Specifications, Handling & Storage, **Steam Trap** Design, Operation, Maintenance & Troubleshooting, **Steam Trapping & Control, Column, Pump** Technology, **Pump** Selection & Installation, **Centrifugal Pumps** Troubleshooting, **Pumps** Design, Selection & Operation, **Pump & Exchangers**, Troubleshooting & Design, **Rotating Equipment** Operation & Troubleshooting, **Control & ESD System, Detailed Engineering Drawings**, Codes & Standards, **Budget** Preparation, Allocation & Cost Control, Root Cause Analysis (**RCA**), **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.

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

0800 – 0830	<i>Registration & Coffee</i>
0830 – 0845	<i>Welcome & Introduction</i>
0845 – 0900	PRE-TEST
0900 – 0930	Introduction to ISO 55000 <i>Provides an Overview of the ISO 55000 Suite of International Standards</i>
0930 – 0945	<i>Break</i>
0945 – 1100	Overview of ISO 55001 <i>Elements • Structure • Requirements for an Asset Management System</i>
1100 – 1230	Benefits of Adopting ISO 55000 <i>The Business Case for ISO 55000 International Standards</i>
1230 – 1245	<i>Break</i>
1245 – 1350	Achieving Certification <i>Roadmap to Achieving Certification and Subsequent Business Improvement</i>
1350 – 1400	Recap
1400	<i>End of Day One</i>

Day 2

0800 – 0930	Managing Risk <i>Risk and its Management – A Discussion of the Various Approaches Used, Including HAZOP and Risk-Based Inspection</i>
0930 – 0945	<i>Break</i>
0945 – 1100	Managing Risk (cont'd) <i>Risk and its Management – A Discussion of the Various Approaches Used, Including HAZOP and Risk-Based Inspection (cont'd)</i>
1100 – 1230	Managing Reliability through People <i>Total Productive Maintenance (TPM) – People-Centric Maintenance and Quality Improvement</i>
1230 – 1245	<i>Break</i>
1245 – 1350	Managing Reliability through People (cont'd) <i>Total Productive Maintenance (TPM) – People-Centric Maintenance and Quality Improvement (cont'd)</i>
1350 – 1400	Recap
1400	<i>End of Day Two</i>

Day 3

0800 – 0930	Optimizing Methodologies <i>Asset Management of Projects</i>
0930 – 0945	<i>Break</i>
0945 – 1100	Optimizing Methodologies (cont'd) <i>Quantum Leaps in Process Improvement – The Ten Essential Requirements for DESIGN and RAM (Reliability, Availability & Maintainability) • Supplier Partnering Programme (SPP)</i>
1100 – 1230	Optimizing Methodologies (cont'd) <i>Definition of Failure • The Failure Process • Age versus Reliability Patterns</i>



1230 – 1245	Break
1245 – 1350	Optimizing Methodologies (cont'd) Root Cause Failure Analysis (RCFA): Optimizing RCM Results • Optimizing Life Cycle Decisions
1350 – 1400	Recap
1400	End of Day Three

Day 4

0800 – 0930	Optimizing Human & Asset Performance by Focusing on Behaviour & Results Taking Stock of your Organization: Balanced Score Cards, Benchmarking and Key Performance Indicators
0930 – 0945	Break
0945 – 1100	Basic Economics Aspects of Discounted Cash Flow used in Capital Equipment Replacement Analysis • Present-Value Calculations • The Effects of Inflation in the Analysis • Estimating the Interest Rate Appropriate for Discounting
1100 – 1230	Basic Economics (cont'd) Calculating the Equivalent Annual Cost (EAC) • Minimizing Life Cycle Cost
1230 – 1245	Break
1245 – 1350	Basic Statistics The Problem with Uncertainty • Dealing with Censored Data – Weibull Analysis, etc. • Where do you Place your Maintenance Efforts?
1350 – 1400	Recap
1400	End of Day Four

Day 5

0800 – 0900	Optimizing Maintenance & Replacement Decisions Network System Reliability • Maintenance Tasks
0900 – 1000	Reliability Centered Maintenance (RCM) RCM – The Analytical Decision Logic • Is RCM the Right Tool for you? • What can RCM Achieve? • What does it take to Implement RCM? • Reasons for the Failure of RCM • Capability Driven RCM
1000 – 1005	Break
1005 – 1100	Group Exercise An Opportunity to Apply the Theory of RCM to Practical Items of Plant
1100 – 1130	Optimizing Condition Based Maintenance Decisions Optimizing Time Based Maintenance • Getting the Most Out of your Equipment Before Repair Time
1130 – 1145	Course Conclusion
1145 – 1200	POST-TEST
1200	End of Course





Practical Sessions

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



Course Coordinator

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