COURSE OVERVIEW RE0987
Asset Management

Course Title
Asset Management

Course Date/Venue
November 02-06, 2025/TBA Meeting Room, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE

Course Reference
RE0987

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.

This course is designed to provide participants with a detailed and up-to-date overview of Integrated Asset Management. It covers the foundations of asset management, asset classification and hierarchy and lifecycle approach to asset optimization; the strategic asset management planning (SAMP), stakeholder roles and collaboration and regulatory and compliance considerations; the reliability-centered maintenance (RCM) processes, failure modes and effects analysis (FMEA), decision logic for maintenance strategies and implementation of RCM in oil and gas; the critical components, consequence and probability scoring, risk prioritization matrix and case application from upstream operations; the condition-based monitoring (CBM) and risk-based asset management; and the asset performance management (APM).

Further, the course will also discuss the digital twin technology, lifecycle data modeling, visualization and simulations for decision-making and integrating digital twins with asset systems; the asset integrity management systems (AIMS), maintenance strategy development and computerized maintenance management systems (CMMS); the data requirements throughout asset lifecycle; the asset register integrity, standards, master data governance and cleansing; the shutdown and turnaround planning, asset cybersecurity and remote monitoring; and the lifecycle costing and economic evaluation.

During this interactive course, participants will learn the energy efficiency and sustainability integration, strategic planning for asset renewal and replacement and digital transformation in asset management; the cultural change in asset strategies, training and workforce alignment, leadership and communication in implementation; and overcoming resistance and sustaining engagement.

Course Objectives

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

- Apply and gain an in-depth knowledge on integrated asset management
- Discuss the foundations of asset management, asset classification and hierarchy and lifecycle approach to asset optimization
- Recognize strategic asset management planning (SAMP), stakeholder roles and collaboration and regulatory and compliance considerations
- Carryout reliability-centered maintenance (RCM) processes, failure modes and effects analysis (FMEA), decision logic for maintenance strategies and implementation of RCM in oil and gas
- Identify critical components, consequence and probability scoring, risk prioritization matrix and case application from upstream operations
- Employ condition-based monitoring (CBM), risk-based asset management and asset performance management (APM)
- Discuss digital twin technology, lifecycle data modeling, visualization and simulations for decision-making and integrating digital twins with asset systems
- Apply asset integrity management systems (AIMS), maintenance strategy development and computerized maintenance management systems (CMMS)
- Identify data requirements throughout asset lifecycle and explain asset register integrity, standards, master data governance and cleansing
- Illustrate shutdown and turnaround planning, asset cybersecurity and remote monitoring, lifecycle costing and economic evaluation
- Apply energy efficiency and sustainability integration, strategic planning for asset renewal and replacement and digital transformation in asset management
- Implement cultural change in asset strategies, training and workforce alignment, leadership and communication in implementation and overcoming resistance and sustaining engagement

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 integrated asset management for asset management professionals, operations and maintenance personnel, engineering and technical staff, finance and strategic planners, IT and data management professionals, executives and decision-makers and other technical staff.

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
Haward's 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**. 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.

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 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 Optimization & Best Practices**, **Process Plant Shutdown & Turnaround**, **Maintenance Auditing & Benchmarking**, **Reliability** Management, **Reliability Centered Maintenance Principles & Application**, **Efficient Shutdowns**, **Machinery Lubrication**, **Maintenance Planning & Scheduling**, **Coupling & Shaft Alignment** Techniques, **Maintenance Auditing & Benchmarking**, **Reliability** Management, **Reliability Centered Maintenance Principles & Application**, **Efficient Shutdowns**, **Machinery Lubrication**, **Maintenance Planning & Scheduling**, **Coupling & Shaft Alignment** Techniques, Reliability, Availability & Maintainability (**RAM**), **Root Cause** Analysis, **Maintenance** Process, **Reliability-Centered Maintenance** (**RCM**), **Reliability Engineering Analysis** (**RE**), **Root Cause Analysis** (**RCA**), **Asset Integrity Management** (**AIM**), **Reactive & Proactive** Maintenance, **Pressure Safety Relief Valve** Repair & Recalibration, **PSV/PRV** Troubleshooting, **PRV** Testing & Repair, **Valve** Testing & Inspection, **Valve** Sealing, **Valve** Calibration, **Control Valves & Actuators**, **Boiler** Inspection & Maintenance, **Boiler** Systems, **Boiler** instrumentation & Controls, **Boiler** Start-up & Shutdown, **Boiler** Operation & Steam System Management, **Boiler** Water Chemistry & Treatment, **Boiler** Efficiency & Waste Heat Recovery, **Boiler** Inspection & Testing, **Boiler** Maintenance, **Boiler** Troubleshooting & Safety, **Boiler** Emissions & Pollution Control, **Combustion** Analysis & Tuning Procedures, **Water Treatment** Technology, Heat Recovery Steam Generating (**HRSG**), **Impulse Tube** Installation & Inspection, **Parker Compression Fittings**, **Pipes & Fittings**, **PSV Inspection**, **Root Cause Failure Analysis**, **Tank** Design & Engineering, **Tank Shell**, **Tanks & Tank Farms**, **Vacuum Tanks**, **Gas Turbine** Operating & Maintenance, **Reciprocating & Centrifugal Compressors**, **Screw Compressor**, **Compressor** Control & Protection, **Gas & Steam Turbines**, **Turbine** Operations, **Gas Turbine** Technology, **Valves**, **Process Control Valves**, **Bearings & Lubrication** and Advanced **Machinery Dynamics**.

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 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.

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: ***Sunday, 02nd of November 2025***

0730 – 0800	*Registration & Coffee*
0800 – 0815	*Welcome & Introduction*
0815 – 0830	***PRE-TEST***
0830 – 0930	***Foundations of Asset Management*** *Definition & Objectives of Asset Management • ISO 55000 Asset Management Standards • Asset Lifecycle Phases • Stakeholder Expectations & Alignment*
0930 – 0945	*Break*
0945 – 1030	***Asset Classification & Hierarchy*** *Asset Types Across Oil & Gas Facilities • Functional Location Structures • Tagging, Identification & Coding Systems • Hierarchical Asset Management Models*
1030 – 1130	***Lifecycle Approach to Asset Optimization*** *Planning & Design Integration • Operation & Maintenance Phase • Decommissioning & Replacement Strategy • Continuous Improvement Model*
1130 – 1215	***Strategic Asset Management Planning (SAMP)*** *Role & Structure of SAMP • Alignment with Organizational Strategy • Performance-Based Objectives • Risk-Based Decision-Making in Planning*
1215 – 1230	*Break*
1230 – 1420	***Stakeholder Roles & Collaboration*** *Cross-Functional Collaboration (Engineering, Operations, Maintenance) • Communication Strategies & KPIs • Challenges in Cross-Discipline Coordination • Governance & Policy Setting*
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: **Monday, 03rd of November 2025**

0730 – 0830	***Regulatory & Compliance Considerations*** *National & International Regulatory Frameworks • Asset Integrity & HSE Standards • Environmental & Operational Compliance • Reporting Requirements & Audit Readiness*
0830 – 0930	***Reliability-Centered Maintenance (RCM)*** *RCM Principles & Processes • Failure Modes & Effects Analysis (FMEA) • Decision Logic for Maintenance Strategies • Implementation of RCM in Oil & Gas*
0930 – 0945	*Break*
0945 – 1100	***Failure Modes, Effects & Criticality Analysis (FMECA)*** *Identifying Critical Components • Consequence & Probability Scoring • Risk Prioritization Matrix • Case Application from Upstream Operations*
1100 – 1215	***Condition-Based Monitoring (CBM) & Predictive Maintenance*** *CBM Technologies (Vibration, Thermal, Ultrasonic) • Predictive Analytics & AI Integration • Real-Time Monitoring Systems • Integration with Computerized Maintenance Management Systems (CMMS)*
1215 – 1230	*Break*
1230 – 1420	***Risk-Based Asset Management*** *Identifying Asset-Related Risks • Quantitative & Qualitative Risk Assessment • Mitigation Planning & ALARP Principle • Risk Registers & Bowtie Analysis*
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: **Tuesday, 04th of November 2025**

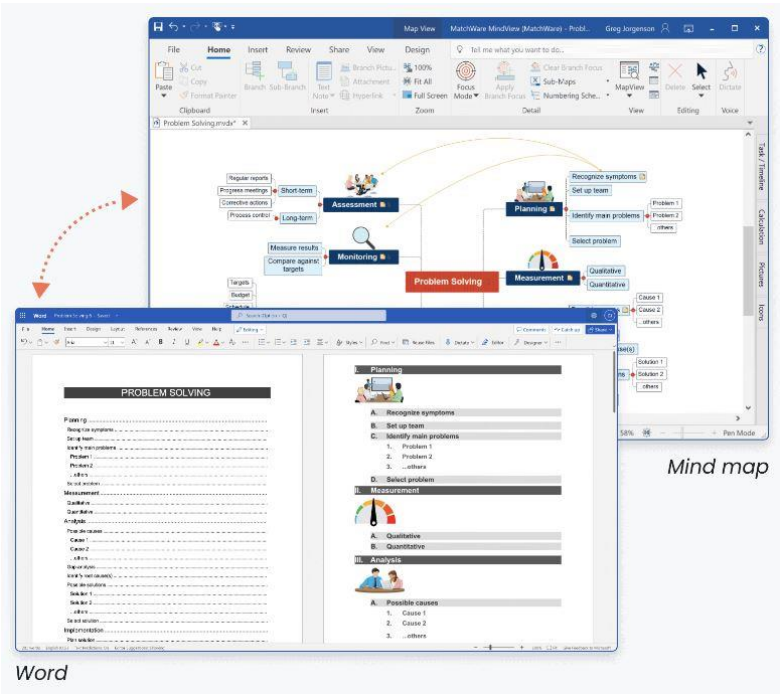
0730 – 0830	***Asset Performance Management (APM)*** *APM Platforms & Tools • Key Performance Indicators (KPIs) • Asset Utilization versus Availability • Reliability Analysis (MTTR, MTBF)*
0830 – 0930	***Decision Support Tools & Digital Twins*** *Introduction to Digital Twin Technology • Lifecycle Data Modeling • Visualization & Simulations for Decision-Making • Integrating Digital Twins with Asset Systems*
0930 – 0945	*Break*
0945 – 1100	***Asset Integrity Management Systems (AIMS)*** *Core Elements of AIMS • Integrity Assurance & Verification Activities • Managing Static & Rotating Equipment • Fitness-for-Service Assessments*
1100 – 1215	***Maintenance Strategy Development*** *Preventive versus Reactive versus Predictive Maintenance • Maintenance Task Analysis • Cost-Benefit Evaluation of Maintenance Strategies • Optimizing Work Orders & Spare Part Logistics*
1215 – 1230	*Break*
1230 – 1420	***Computerized Maintenance Management Systems (CMMS)*** *CMMS Selection & Configuration • Work Order Management Workflow • Inventory & Spare Parts Tracking • Reporting & Analytics Capabilities*
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:	Wednesday, 05th of November 2025
0730 – 0930	***Data Management & Asset Information Standards*** *Data Requirements Throughout Asset Lifecycle • Asset Register Integrity • Standards (e.g., ISO 14224, PAS 55) • Master Data Governance & Cleansing*
0930 – 0945	*Break*
0945 – 1100	***Shutdown & Turnaround Planning*** *Key Elements of Turnaround Execution • Scheduling, Resourcing & Budgeting • Risk & Contingency Planning • Post-Turnaround Asset Performance Review*
1100 – 1215	***Asset Cybersecurity & Remote Monitoring*** *Cyber Risks to Asset Control Systems • Secure Data Architecture for SCADA/DCS • IIoT (Industrial IoT) & Remote Access Security • Incident Response & Mitigation Planning*
1215 – 1230	*Break*
1230 – 1330	***Lifecycle Costing & Economic Evaluation*** *Total Cost of Ownership (TCO) • Net Present Value (NPV) & ROI in Asset Investments • Budgeting for Lifecycle Phases • Cost Optimization Opportunities*
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 5:	Thursday, 06th of November 2025
0730 – 0930	***Energy Efficiency & Sustainability Integration*** *Energy Performance Indicators (EnPIs) • Sustainable Asset Management Strategies • Emission Management from Assets • Integration with ESG Goals*
0930 – 0945	*Break*
0945 – 1100	***Strategic Planning for Asset Renewal & Replacement*** *Criteria for Renewal/Replacement Decisions • Long-Term Capital Investment Planning • Asset Obsolescence & Modernization • Benchmarking Asset Performance*
1100 – 1215	***Digital Transformation in Asset Management*** *Role of AI & Machine Learning • Cloud-Based Platforms for Real-Time Data • Integrated Dashboards & Mobile Accessibility • Case Studies of Digital Asset Management*
1215 – 1230	*Break*
1230 – 1345	***Change Management & Implementation Best Practices*** *Driving Cultural Change in Asset Strategies • Training & Workforce Alignment • Leadership & Communication in Implementation • Overcoming Resistance & Sustaining Engagement*
1345 – 1400	***Course Conclusion*** *Using this Course Overview, the Instructor(s) will Brief Participants about t Topics that were Covered During the Course*
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

Mari Nakintu, Tel: +971 2 30 91 714, Email: mari1@haward.org