COURSE OVERVIEW FE0005
Certified Asset Integrity Professional

Course Title
Certified Asset Integrity Professional

Course Reference
FE0005

Course Duration/Credits
Five days/3.0 CEUs/30 PDHs

Course Date/Venu

Session(s)	Date	Venue
1	March 29-April 02, 2026	Crowne Meeting Room, Crowne Plaza Al Khobar, KSA
2	May 31-June 04, 2026	Meeting Plus 9, City Centre Rotana, Doha Qatar
3	September 27-October 01, 2026	Board room, Sheraton Dubai Creek Hotel & Towers, Dubai UAE
4	December 21-25, 2026	Glasshouse Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE

Course Description

This practical and highly-interactive course includes real-life case studies 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 overview of Certified Asset Integrity Professional. It covers the asset integrity management (AIM), industry standards, frameworks and key principles of AIM; the asset integrity challenges in petroleum operations and the common failures and degradation mechanisms, environmental factors, aging infrastructure, life extension challenges and risk management; linking aim to profitability and operational excellence; the cost-benefit analysis of aim implementation and strategic planning for long-term asset management; and the fundamentals of risk-based inspection (RBI) and failure mechanisms.

Further, the course will also discuss the inspection techniques, tools and integrity plans; the fitness-for-service (FFS) assessments, decision-making and reporting and documentation; the corrosion mechanisms, material selection and compatibility; the coating and cathodic protection; the corrosion inhibition strategies, corrosion management plan and maintenance strategies; the reliability-centered maintenance (RCM), failure mode and effects analysis (FMEA) and root cause analysis (RCA); and the spare parts and inventory management.

During this interactive course, participants will learn how to use digital tools for maintenance and reliability and AIM technologies; identifying and assessing asset risks and developing mitigation strategies; the emergency response planning for asset failures; the importance of life cycle cost analysis (LCCA) in asset decisions; calculating total cost of ownership (TCO) and balance maintenance costs with operational efficiency; the environmental considerations in AIM practices; reducing carbon footprint through effective AIM; managing aging infrastructure sustainably; and compliance with environmental regulations.

Course Objectives

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

- Get certified as a "*Certified Asset Integrity Professional*"
- Discuss asset integrity management (AIM), industry standards, frameworks and key principles of AIM
- Identify asset integrity challenges in petroleum operations including the common failures and degradation mechanisms, environmental factors, aging infrastructure, life extension challenges and risk management
- Link aim to profitability and operational excellence and apply cost-benefit analysis of aim implementation and strategic planning for long-term asset management
- Recognize the fundamentals of risk-based inspection (RBI) and failure mechanisms
- Apply inspection techniques and tools as well as develop and update integrity plans
- Carryout fitness-for-service (FFS) assessments, decision-making and reporting and documentation
- Discuss corrosion mechanisms and apply material selection and compatibility including coating and cathodic protection
- Employ corrosion inhibition strategies, corrosion management plan and maintenance strategies
- Apply reliability-centered maintenance (RCM), failure mode and effects analysis (FMEA), root cause analysis (RCA) and spare parts and inventory management
- Use digital tools for maintenance and reliability and recognize AIM technologies
- Identify and assess asset risks, develop mitigation strategies and apply emergency response planning for asset failures
- Discuss the importance of life cycle cost analysis (LCCA) in asset decisions, calculate total cost of ownership (TCO) and balance maintenance costs with operational efficiency
- Carryout environmental considerations in AIM practices and reduce carbon footprint through effective AIM
- Manage aging infrastructure sustainably and comply with environmental regulations

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 asset integrity for engineering professionals, asset integrity and management specialists, operations and maintenance personnel, health, safety, and environment (HSE) professionals, inspection and quality professionals, project and risk managers, industry-specific professionals and those who seek to build or enhance skills in asset integrity and other technical staff.

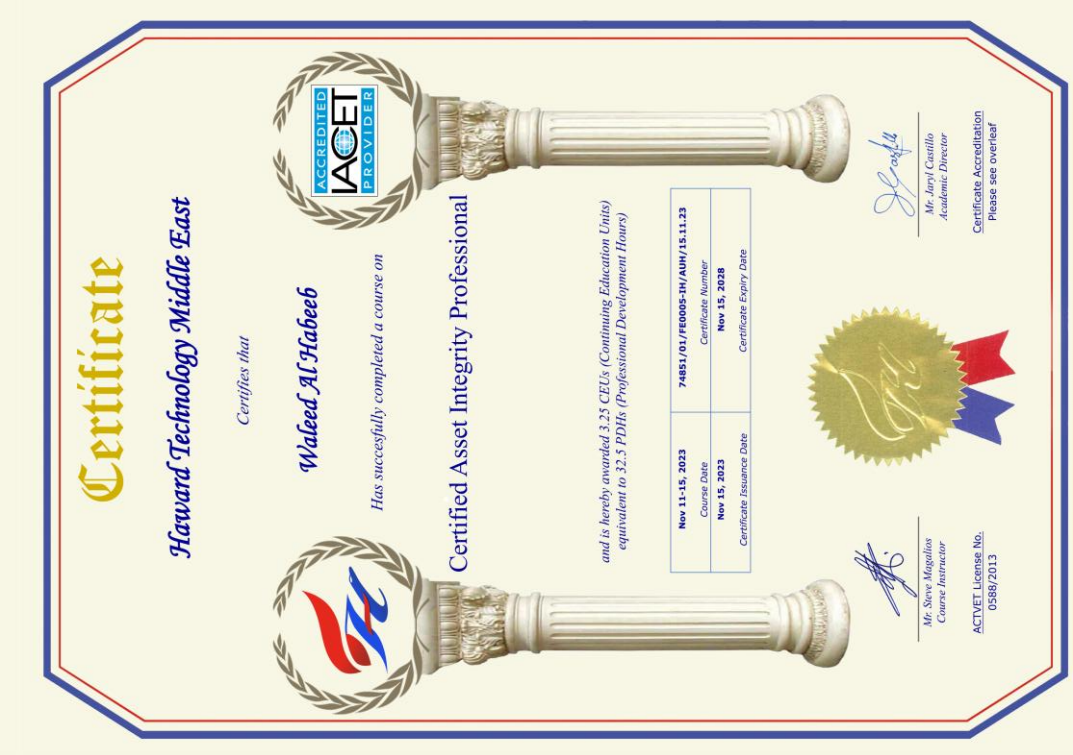
Course Certificate(s)

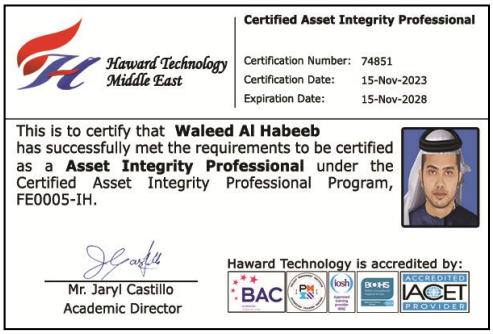
(1) Internationally recognized Competency Certificates and Plastic Wallet Cards will be issued to participants who completed a minimum of 80% of the total tuition hours and successfully passed the exam at the end of the course. Successful candidate will be certified as a "*Certified Asset Integrity Professional*". Certificates are valid for 5 years.

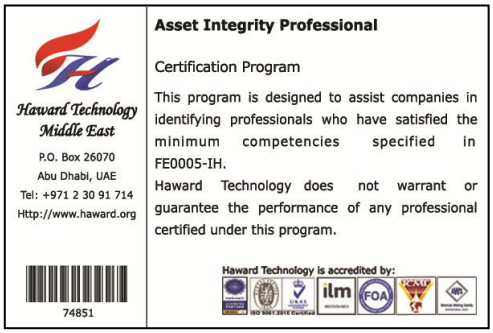
Recertification is FOC for a Lifetime.

Sample of Certificates

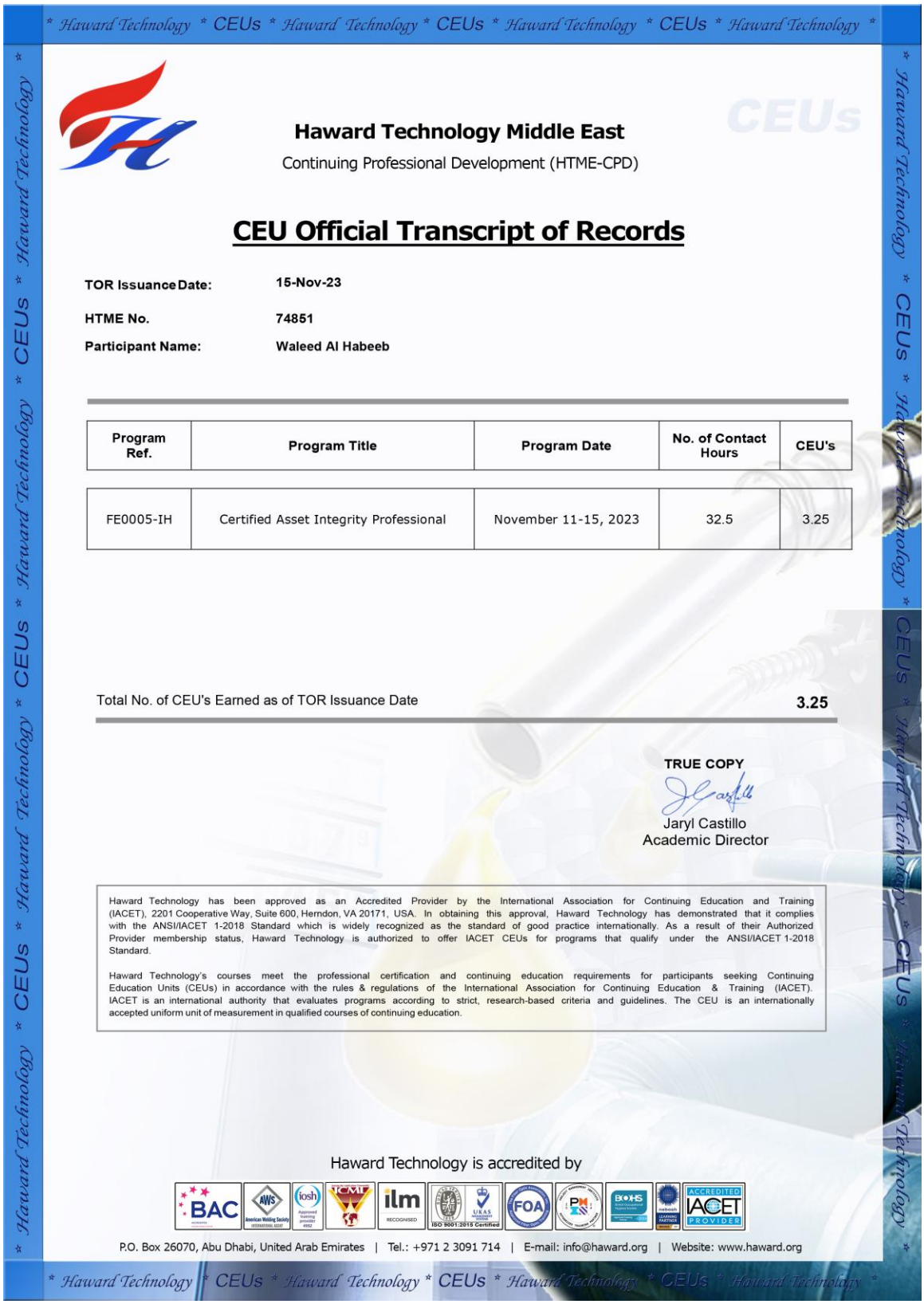
The following are samples of the certificates that will be awarded to course participants:-







(2) Official Transcript of Records will be provided to the successful delegates with the equivalent number of ANSI/IACET accredited Continuing Education Units (CEUs) earned during the course.



Haward Technology Middle East

Continuing Professional Development (HTME-CPD)

CEU Official Transcript of Records

TOR Issuance Date: 15-Nov-23

HTME No. 74851

Participant Name: Waleed Al Habeeb

Program Ref.	Program Title	Program Date	No. of Contact Hours	CEU's
FE0005-IH	Certified Asset Integrity Professional	November 11-15, 2023	32.5	3.25

Total No. of CEU's Earned as of TOR Issuance Date **3.25**

TRUE COPY

Jaryl Castillo
Academic Director

Haward Technology has been approved as an Accredited Provider by the International Association for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this approval, Haward Technology has demonstrated that it complies with the ANSI/IACET 1-2018 Standard which is widely recognized as the standard of good practice internationally. As a result of their Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for programs that qualify under the ANSI/IACET 1-2018 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 Association 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 is accredited by

P.O. Box 26070, Abu Dhabi, United Arab Emirates | Tel.: +971 2 3091 714 | E-mail: info@haward.org | Website: www.haward.org

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 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**, **Boiler** Inspection & Maintenance, **Boiler** Systems, **Boiler** instrumentation & Controls, **Boiler** Start-up & Shutdown, **Boiler** Operation & Steam System Management, **Pipe Cuttings**, **Flange Bolt Tightening** Sequence, **Hydro Testing**, **Pump** Technology, Fundamentals of **Pumps**, **Pump** Selection & Installation, **Centrifugal Pumps & Troubleshooting**, **Reciprocating & Centrifugal Compressors**, **Screw Compressor**, **Compressor** Control & Protection, **Gas & Steam Turbines**, **Turbine** Operations, **Gas Turbine** Technology, **Valves**, **Process Control Valves**, **API 598: Valve Inspection and Testing**, **Bearings & Lubrication**, Advanced **Machinery Dynamics**, **Rubber Compounding**, **Elastomers**, **Thermoplastic**, **Industrial Rubber Products**, **Rubber** Manufacturing Systems, **Heat Transfer**, **Vulcanization Methods**, **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**). 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**, **Mechanical 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 Ingeneria 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.

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/Al Khobar/ Abu Dhabi	**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 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

0730 – 0800	*Registration & Coffee*
0800 – 0815	*Welcome & Introduction*
0815 – 0830	***PRE-TEST***
0830 – 0930	***Overview of Asset Integrity Management (AIM)*** *Definition and Importance of AIM in the Petroleum Industry • Key Components of Asset Integrity Management Systems • Relationship Between AIM and Operational Safety • Asset Life Cycle Phases and Their Impact on Integrity*
0930 – 0945	*Break*
0945 – 1030	***Industry Standards & Frameworks*** *Overview of Relevant Standards: ISO 55000, API 580, ASME Standards • Role of Regulatory Bodies in Petroleum Asset Integrity • International Best Practices for AIM • Importance of Compliance in Asset Integrity*
1030 – 1130	***Key Principles of AIM*** *Risk-Based Approach to Integrity Management • Integration of AIM with Corporate Strategies • Preventive Versus Reactive Maintenance Strategies • Data-Driven Decision-Making for Asset Integrity*
1130 – 1215	***Asset Integrity Challenges in Petroleum Operations*** *Common Failures and Degradation Mechanisms • Environmental Factors Affecting Petroleum Assets • Aging Infrastructure and Life Extension Challenges • Risk Management for Offshore and Onshore Facilities*

1215 – 1230	*Break*
1230 – 1330	***Asset Management & Business Objectives*** *Linking AIM to Profitability and Operational Excellence • Cost-Benefit Analysis of AIM Implementation • Case Studies Demonstrating AIM Success • Strategic Planning for Long-Term Asset Management*
1330 – 1420	***Case Studies & Practical Insights*** *Real-World Examples of AIM Applications in Petroleum • Lessons Learned from Asset Failures • Success Stories in Preventing Operational Downtime • Group Discussion and Knowledge-Sharing*
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 – 0830	***Basics of Risk-Based Inspection (RBI)*** *Fundamentals of RBI and its Role in AIM • Steps in Developing an RBI Plan • Prioritization of Assets Based on Risk Profiles • Benefits of RBI in Petroleum Facilities*
0830 – 0930	***Understanding Failure Mechanisms*** *Mechanical Failure Modes (Fatigue, Cracking, Creep) • Corrosion-Related Failure Mechanisms • Metallurgical and Thermal Degradation Processes • Environmental Factors Contributing to Failure*
0930 – 0945	*Break*
0945 – 1100	***Inspection Techniques & Tools*** *Non-Destructive Testing (NDT) Methods: UT, RT, PT, MT • Online Monitoring Technologies • Inspection Planning and Frequency Optimization • Integrating Inspection Data with AIM Systems*
1100 – 1215	***Developing & Updating Integrity Plans*** *Key Elements of an Asset Integrity Plan • Frequency and Criteria for Updates • Aligning Plans with Operational Changes • Tools and Software for Managing Integrity Plans*
1215 – 1230	*Break*
1230 – 1330	***Fitness-for-Service (FFS) Assessments*** *Fundamentals of FFS and API 579 • Assessing Structural Integrity under Current Conditions • Decision-Making: Repair, Replace or Continue Operation • Reporting and Documentation of FFS Assessments*
1330 – 1420	***Hands-On Session: Failure Analysis*** *Case-Based Exercises in Identifying Failure Causes • Analyzing Inspection Reports for Risk Prioritization • Group Work: Developing RBI Strategies • Real-World Failure Scenarios and Solutions*
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 – 0830	***Corrosion Mechanisms*** *Types of Corrosion in Petroleum Assets • Factors Influencing Corrosion Rates • Corrosion in Pipelines, Tanks and Offshore Structures • Methods for Monitoring Corrosion*

0830 – 0930	***Material Selection & Compatibility*** *Criteria for Selecting Materials in Petroleum Environments • Metallurgical Properties and Corrosion Resistance • Compatibility with Fluids and Operational Conditions • Best Practices for Material Upgrades*
0930 – 0945	*Break*
0945 – 1100	***Coating & Cathodic Protection*** *Types of Coatings for Asset Protection • Basics of Cathodic Protection Systems • Inspection and Maintenance of Protective Systems • Environmental Considerations in Protection Systems*
1100 – 1215	***Corrosion Inhibition Strategies*** *Use of Chemical Inhibitors in Asset Protection • Monitoring and Optimization of Inhibitors • Case Studies on Successful Inhibitor Programs • Economic Analysis of Corrosion Prevention*
1215 – 1230	*Break*
1230 – 1330	***Corrosion Management Programs*** *Developing a Comprehensive Corrosion Management Plan • Integrating Corrosion Management with AIM Systems • Key Performance Indicators for Corrosion Management • Role of Data Analytics in Corrosion Prediction*
1330 – 1420	***Hands-On Session: Corrosion Testing*** *Practical Use of Corrosion Monitoring Equipment • Analyzing Corrosion Data and Interpreting Results • Developing a Corrosion Management Strategy • Group Discussion on Best Practices*
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 – 0830	***Maintenance Strategies*** *Preventive, Predictive and Corrective Maintenance • Condition-Based Maintenance (CBM) Techniques • Maintenance Prioritization and Planning • Maintenance Challenges in Petroleum Facilities*
0830 – 0930	***Reliability-Centered Maintenance (RCM)*** *Key Principles of RCM • Applying RCM in Petroleum Operations • Failure Mode and Effects Analysis (FMEA) • Developing an Effective RCM Program*
0930 – 0945	*Break*
0945 – 1100	***Root Cause Analysis (RCA)*** *Steps in Conducting RCA for Failures • Tools for RCA: Ishikawa Diagrams, 5 Whys, etc. • Linking RCA Findings to Maintenance Strategies • Case Studies in RCA Application*
1100 – 1215	***Spare Parts & Inventory Management*** *Optimizing Spare Parts Inventory • Critical Spare Identification • Balancing Costs with Availability and Reliability • Inventory Management Tools and Techniques*
1215 – 1230	*Break*
1230 – 1330	***Digital Tools for Maintenance & Reliability*** *Introduction to Computerized Maintenance Management Systems (CMMS) • Role of IoT in Predictive Maintenance • Data Analytics for Reliability Improvement • Integrating Maintenance Tools with AIM Systems*

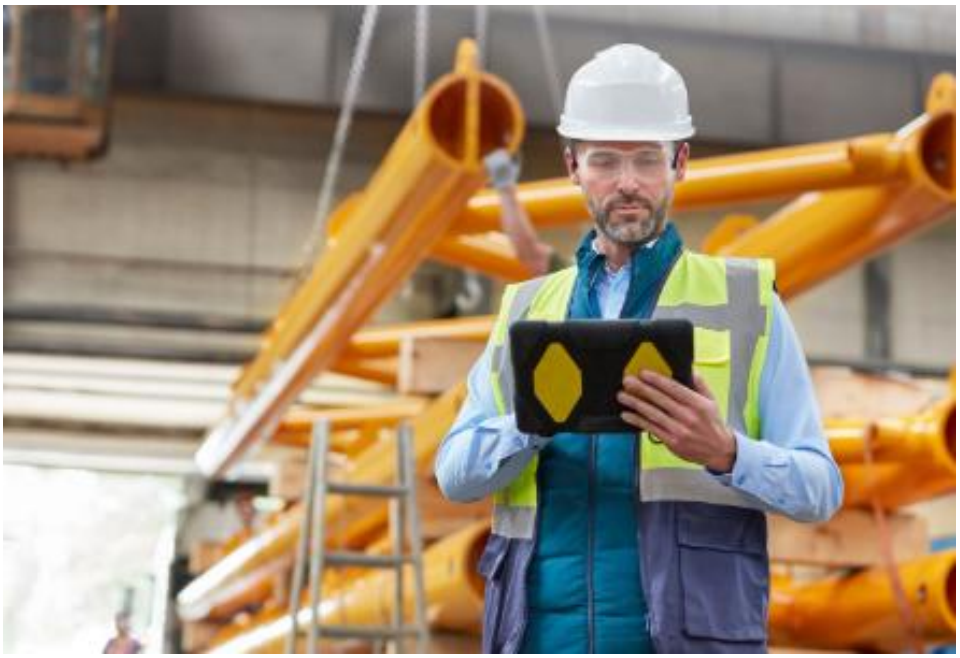
1330 – 1420	***Practical Session: Maintenance Planning*** *Developing a Maintenance Schedule • Simulated RCA and FMEA Exercises • Optimizing Maintenance Activities for Key Assets • Evaluating Maintenance Outcomes*
1420 – 1430	***Recap*** *Using this Course Overview, the Instructor(s) will Brief Participants 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 – 0830	***Advanced AIM Technologies*** *Role of Artificial Intelligence in AIM • Digital Twins for Asset Management • Advanced Inspection and Monitoring Tools • Future Trends in Asset Integrity Technologies*
0830 – 0930	***Risk Management in AIM*** *Identifying and Assessing Asset Risks • Developing Mitigation Strategies • Emergency Response Planning for Asset Failures • Case Studies on Risk Management*
0930 – 0945	*Break*
0945 – 1100	***Life Cycle Cost Analysis (LCCA)*** *Importance of LCCA in Asset Decisions • Calculating Total Cost of Ownership (TCO) • Balancing Maintenance Costs with Operational Efficiency • Practical Application of LCCA in Aim*
1215 – 1230	*Break*
1230 – 1300	***Sustainability in AIM*** *Environmental Considerations in AIM Practices • Reducing Carbon Footprint through Effective AIM • Managing Aging Infrastructure Sustainably • Compliance with Environmental regulations*
1300 – 1315	***Course Conclusion*** *Using this Course Overview, the Instructor(s) will Brief Participants about t Topics that were Covered During the Course*
1315 – 1415	***COMPETENCY EXAM***
1415 – 1430	*Presentation of Course Certificates*
1430	*Lunch & End of Course*

Practical Sessions

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



Course Coordinator

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