



Specialist Knowledge | Extraordinary Results

Training Programmes

(Facilities, Operations and HSE)

2026

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AeonX E&P Learning

AeonX technical staff and global partners are seasoned E&P professionals with extensive international experience. We enjoy sharing our technical expertise and practical knowledge of the E&P industry with colleagues while ensuring high standards and quality of technical work. This makes us excellent teaching experts with a goal to always provide value.

We provide technical training and competency development in various disciplines within the oil and gas industry, with a focus on practice alongside the theory. Our training course courses include a wide range of subsurface and surface engineering courses which cover drilling and completions, reservoir engineering, production technology, reservoir and production management, PVT analyses, Petrophysics, Geology and geophysics, Production operations, Planning and scheduling, Petroleum economics, Green and Brown field development, Management, Operation and leadership courses etc.

Our courses range from standard five-day courses for fundamentals up to advanced and mastery level courses such as 6-week "Field development planning" course aimed at EP staff with several years of experience.

In house competencies can also be enhanced through structured internal training courses and cross functional workshops suited to your company using experienced facilitators. We review each organisation's competency development goals and focus areas and develop bespoke courses to improve capabilities.

Our training courses and workshops are provided over **5 days** unless indicated and can be delivered locally or internationally – UK, USA, UAE, Spain, Netherlands, Italy, France, Singapore, Thailand etc.

Training Course Overview

Our facilities, operation & HSE courses were designed to cover all levels of knowledge and understanding of the field of study, which includes surface facilities engineering, process and production operations, integrity management and health, safety and environment. It provides courses in areas like operations management, pipe pigging, corrosion management, maintenance management and quantitative risk analysis.

ADVANCED COURSES

1 Advanced Operations Management – Gas Processing

Operations Management ensures the smooth and optimal flow of work. This advanced course helps to equip operations engineers, facility managers and senior technicians with the technical depth required to optimize gas processing plant performance, manage complex operational challenges, and drive continuous improvement across gas handling, treating and compression systems. Participants will learn the full understanding of gas processing value chain and apply best practice operational strategies to maximize throughput, reduce downtime and ensure safe and efficient plant operation.

Some of the topics to be covered in this include;

- Gas processing fundamentals: composition, phase behaviour and gas quality specifications
- Inlet separation and slug management
- Gas dehydration technologies (TEG, molecular sieves, adsorption)
- Gas sweetening and acid gas removal processes
- NGL recovery and fractionation operations

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- Gas compression systems: types, performance monitoring and troubleshooting
- Process control and instrumentation in gas plants

2 Advanced Corrosion Management and Prevention of Failure

This course provides a comprehensive understanding of corrosion mechanisms and equips participants with the skills to develop, implement, and sustain effective corrosion management strategies. The course bridges the gap between theoretical corrosion science and real-world asset integrity challenges, covering both internal and external corrosion threats across pipelines, vessels, topside equipment, and subsea systems.

Topics covered in this course include;

- Principles of electrochemical and chemical corrosion
- Corrosion mechanisms: CO₂, H₂S, microbiological, galvanic, pitting, crevice
- Corrosion in pipelines: internal and external threats
- Corrosion threat assessment and risk-based inspection (RBI) frameworks
- Corrosion inhibition strategies: selection, application, and monitoring
- Cathodic protection design and performance verification
- Coating systems: selection, application, and failure assessment
- Corrosion monitoring techniques (ER probes, coupons, ultrasonic and inline inspection tools)
- High-temperature and high-pressure corrosion environments

3 Pipeline Pigging: Technical and Operational Aspects

Designed for pipeline engineers and operations technicians, this advanced course in Pipeline Pigging provides a thorough and practical understanding of pipeline pigging operations, covering both the technical principles behind pig design and selection, and the operational procedures required to execute pigging programs safely and effectively. Participants will gain the knowledge needed to plan, manage, and troubleshoot pigging activities across liquid, gas, and multiphase pipeline systems, in line with industry best practice and applicable standards. It is also suited to integrity specialists, and maintenance planners involved in the management of pipeline assets.

Some of the topics to be covered in this course include;

- Fundamentals of pipeline pigging and applications in oil and gas operations
- Types of pigs: utility pigs (cleaning, gauging, batching), inline inspection (ILI) tools, and smart pigs.
- Pig launcher and receiver design, configuration, and operational requirements
- Pre-pigging survey: pipeline fitness assessment and data review
- Pigging procedures: isolation, launching, tracking, and receiving
- Pipeline pigging: technical and operational aspects
- Inline inspection (ILI) technologies: MFL, UT, geometry, caliper, and crack detection tools
- ILI data interpretation, anomaly classification, and fitness-for-service follow-up

4 Masterclass in Maintenance Management, Planning, Scheduling and Work Control

This program is specially designed for maintenance engineers, planners, schedulers, and operations managers seeking to develop an integrated, best-in-class approach to asset maintenance and work execution. The course combines maintenance strategy, planning, scheduling, and work control into a unified framework, enabling participants to optimize resource utilization, improve equipment reliability, reduce downtime, and enhance overall operational performance. Participants will gain practical knowledge of how to build and sustain an efficient maintenance organization, supported by robust planning processes and effective work control systems aligned with industry best practices.

Some topics to be covered include the following;

- Maintenance philosophies: reactive, preventive, predictive, and proactive
- Reliability-Centred Maintenance (RCM) methodology and application
- Failure Modes, Effects and Criticality Analysis (FMECA)
- Asset criticality ranking and maintenance strategy optimisation
- Condition monitoring technologies: vibration analysis, thermography, oil sampling
- Maintenance Key Performance Indicators (KPIs) and benchmarking
- Maintenance budgeting and life cycle cost analysis
- Spare parts management and inventory optimisation
- Contractor management and service-level agreements in maintenance

5 Masterclass in Pipeline Inspection and Pipeline Integrity Management

Advanced course on Integrity Management delivers expert-level knowledge in the inspection, assessment, and integrity management of static piping systems and transmission pipelines. Participants will gain a thorough understanding of inspection methodologies, fitness-for-service evaluation techniques, and the implementation of robust pipeline integrity management program (PIMP) in line with international standards. The course is aimed at inspection engineers, integrity specialists, and senior technical professionals responsible for managing piping and pipeline assets.

Some topics to be covered include the following;

- Piping and pipeline design codes and standards (ASME B31.3, B31.4, B31.8, API 570, API 1160)
- Damage mechanisms in piping systems: corrosion, erosion, fatigue, cracking
- Risk-Based Inspection (RBI) methodology for piping circuits
- Non-Destructive Testing (NDT) techniques: UT, RT, TOFD, phased array
- Inline inspection (ILI) technologies and data interpretation
- Fitness-for-Service (FFS) assessments per API 579 / BS 7910
- Pipeline integrity management plan (PIMP) development and governance
- Corrosion growth rate assessment and remaining life prediction
- Anomaly assessment and defect management

6 Quantitative Risk Management for Project Management & Maintenance Planning

The focus of this course is on providing project managers, maintenance planners, and HSE professionals with a structured and quantitative approach to risk assessment in the oil and gas sector. Participants will move beyond qualitative risk matrices to master probabilistic and numerical risk techniques, enabling them to make more rigorous, defensible decisions in project planning, maintenance strategy development, and safety case preparation. The course integrates industry-standard frameworks with practical workshop exercises.

Some topics to be covered include the following;

- Principles of risk: hazard identification, likelihood, consequence, and risk tolerability
- Risk assessment frameworks: qualitative, semi-quantitative, and quantitative approaches
- Hazard identification methodologies (HAZID, HAZOP, What-If analysis)
- Bow-Tie methodology: threat and barrier modelling
- Consequence modelling: dispersion, fire, explosion, and toxic release scenarios
- Individual and societal risk criteria and ALARP demonstration
- Monte Carlo simulation for project schedule and cost risk
- QRA data sources: failure rate databases (OREDA,