MAWA EVENTS

Address: No. 857, Block A2. Leisure Commerce Square - No 9., 46150 Petaling Jaya, Selangor, Malaysia

Phone: +601116373203 | **Email:** info@mawaevents.net

FUNDAMENTALS OF EXPLORATION & PRODUCTION (E&P) OF OIL & GAS

"Understanding the Upstream Value Chain from Discovery to Production"

Schedule

Date	Venue	Fees (Face-to-Face)
06 – 10 Dec 2026	Kuwait	USD 3495 per delegate

► **Available delivery methods:** Face-to-Face & Online Training

Introduction

The exploration and production (E&P) sector forms the foundation of the oil and gas industry. It encompasses the entire upstream value chain—from the initial geological surveys and seismic evaluations to drilling, extraction, and production optimization. Understanding this complex process is vital for professionals across technical and non-technical roles supporting oil and gas operations.

This intensive five-day training provides participants with a comprehensive overview of the E&P lifecycle. The course integrates geological, engineering, operational, and commercial aspects to build a foundational understanding of how hydrocarbons are located, extracted, and brought to market efficiently and safely.

Objectives

By the end of this course, participants will be able to:

- Understand the full upstream lifecycle in oil and gas projects
- Recognize geological and geophysical techniques used in exploration
- Explain drilling operations, well design, and completion processes
- Identify production methods and challenges in various reservoir types
- Appreciate key safety, environmental, and economic considerations in E&P

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Why Attend

- To gain a solid understanding of how exploration and production operations work
- To bridge the knowledge gap between technical, business, and support functions
- To enhance collaboration between field teams and corporate staff
- To build a foundation for more advanced technical or managerial roles in E&P
- To support informed decision-making across upstream project lifecycles

Target Audience

This program is designed for:

- New entrants to the oil and gas industry
- Engineers, technicians, and geoscientists in non-E&P disciplines
- Business, finance, legal, and supply chain professionals supporting upstream activities
- HSE officers, project managers, and regulators
- Professionals transitioning into upstream oil and gas roles

Individual Benefits

Key competencies that will be developed include:

- Understanding of subsurface exploration and reservoir evaluation
- Familiarity with drilling operations and well lifecycle
- Knowledge of surface production systems and processing
- Insight into risk management, safety, and regulatory factors
- Awareness of upstream project economics and development planning

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Improved cross-functional collaboration in upstream operations
- Greater alignment of support functions with field activities
- Enhanced capability to evaluate project opportunities and risks
- Stronger compliance with environmental and safety standards
- A more informed and integrated workforce across the E&P value chain

Instructional Methodology

The course follows a blended learning approach combining theory with practice:

- Strategy Briefings – Exploration lifecycle, drilling systems, and production operations
- Case Studies – Real-world upstream project challenges and solutions
- Workshops – Basin modeling, well planning, and production simulation exercises
- Peer Exchange – Interactive discussions on upstream trends and best practices
- Tools – Geological maps, well schematics, reservoir models, and flow diagrams

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Course Outline

Detailed 5-Day Course Outline

Training Hours: 7:30 AM – 3:30 PM **Daily Format:** 3–4 Learning Modules | Coffee breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 – 02:00

Day 1: Overview of the Oil & Gas Industry and E&P Lifecycle

- Module 1: Introduction to the Oil & Gas Sector (07:30 – 09:30) • Upstream, midstream, and downstream overview • Global supply chains and energy markets • Key industry players and operations
- Module 2: The E&P Lifecycle Explained (09:45 – 11:15) • Stages: exploration, appraisal, development, production • Risk factors and project timelines • Offshore vs. onshore project comparisons
- Module 3: Workshop – Mapping the E&P Process (11:30 – 01:00) • Hands-on exercise linking stages to stakeholders • Team presentations
- Module 4: Hydrocarbon Formation and Accumulation (02:00 – 03:30) • Petroleum geology fundamentals • Source rocks, traps, and reservoirs

Day 2: Exploration Techniques and Reservoir Evaluation

- Module 5: Geological and Geophysical Exploration (07:30 – 09:30) • Seismic surveys, gravity, and magnetic methods • Interpreting geophysical data • Basin modeling and prospect generation
- Module 6: Reservoir Evaluation and Appraisal (09:45 – 11:15) • Core sampling, wireline logging, and well testing • Estimating reserves: STOIIP and GIIP • Reservoir modeling basics
- Module 7: Workshop – Interpreting Seismic and Well Logs (11:30 – 01:00) • Identifying structures and reservoir properties
- Module 8: Exploration Risk and Economic Screening (02:00 – 03:30) • Success probabilities, technical risk, and economic indicators

Day 3: Drilling and Well Engineering

- Module 9: Drilling Engineering Basics (07:30 – 09:30) • Types of wells: vertical, directional, horizontal • Rig types and site preparation • Drilling fluids and blowout preventers
- Module 10: Well Design and Casing Programs (09:45 – 11:15) • Casing, cementing, and pressure control • Stuck pipe, kick detection, and wellbore stability
- Module 11: Workshop – Well Planning Exercise (11:30 – 01:00) • Designing a basic wellbore schematic • Depth, casing, and mud program selection
- Module 12: Safety and Environmental Considerations (02:00 – 03:30) • Drilling safety protocols and HSE practices • Environmental impact assessments

Day 4: Production Operations and Surface Facilities

- Module 13: Production System Components (07:30 – 09:30) • Wellhead, separators, gathering systems • Artificial lift systems (ESP, gas lift, rod pumps) • Surface vs. subsea production
- Module 14: Reservoir Management and Enhanced Recovery (09:45 – 11:15) • Waterflooding, gas injection, EOR methods • Decline curve analysis and production forecasting
- Module 15: Workshop – Production Optimization Case (11:30 – 01:00) • Identifying bottlenecks and improving recovery
- Module 16: Surface Facility Operations (02:00 – 03:30) • Processing, storage, and transportation infrastructure

Day 5: Project Planning, Economics, and Industry Trends

- Module 17: Field Development Planning (07:30 – 09:30) • Appraisal to full-field development • Concept selection and facility sizing
- Module 18: Upstream Project Economics (09:45 – 11:15) • CAPEX, OPEX, breakeven, and NPV • Fiscal regimes and contract types
- Module 19: Workshop – Project Feasibility Assessment (11:30 – 01:00) • Economic evaluation of a field development plan
- Module 20: Future of E&P and Energy Transition (02:00 – 03:30) • Digital oilfields, AI, and automation • Role of E&P in the energy transition

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Certification

Participants will receive a Certificate of Completion in Fundamentals of Exploration & Production (E&P) of Oil & Gas, validating their foundational understanding of upstream oil and gas operations, technologies, and project management principles.

Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
- **Industry-Leading Faculty:** Courses delivered by seasoned professionals with hands-on experience.
- **Practical Insights:** Learn to turn theory into actionable strategies for real-world business impact.
- **Client-Focused Solutions:** Customized programs designed to achieve your organisation’s unique goals.

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