

Course No. 1854

Managing Oil & Gas Production Training Course

**UPSTREAM OPERATIONS, EXPLORATION, DRILLING, RESERVOIR &
PRODUCTION
OIL & GAS**

DURATION

5 Days

DELIVERY

Classroom



Course Overview

This advanced training course provides a comprehensive management framework for optimizing oil and gas production operations across upstream production assets, gathering systems, processing facilities, and field operations. It focuses on the managerial, technical, operational, and commercial factors that influence production performance, asset reliability, operational efficiency, and sustainable production.

The course examines the complete production management cycle, from production planning and reservoir-to-surface coordination through well performance, field operations, production facilities, allocation, optimization, and performance monitoring. Participants will learn how to translate production objectives into practical operating plans while balancing safety, production targets, equipment constraints, reservoir conditions, and operating costs.

A strong emphasis is placed on production optimization, bottleneck identification, production surveillance, well and facility performance, artificial lift, water and gas management, flow assurance, production losses, and operational troubleshooting. The course also addresses how production managers can use operational data and performance indicators to identify deviations, prioritize interventions, and improve production efficiency.

Through practical exercises, field-based scenarios, and integrated case studies, participants will develop the ability to manage production challenges, coordinate multidisciplinary teams, evaluate production opportunities, and make informed decisions that improve output and asset performance. The program integrates production management with maintenance, reliability, asset integrity, process safety, and continuous improvement.

Objectives

- By the end of the course, participants will be able to:
- Analyze the principles and responsibilities of oil and gas production management.
- Develop production plans aligned with field objectives, operational constraints, and business requirements.
- Evaluate well, facility, and field production performance using appropriate operating data.
- Apply production surveillance techniques to identify production losses and performance

deviations.

- Identify production bottlenecks and develop practical optimization strategies.
- Evaluate artificial lift performance and its impact on well productivity.
- Manage water production, gas handling, sand production, and flow assurance challenges.
- Improve coordination between subsurface, drilling, production, operations, maintenance, and engineering teams.
- Evaluate production risks and operational constraints affecting output and facility capacity.
- Apply production performance indicators and data-driven decision-making.
- Develop intervention and optimization priorities based on production impact, risk, and economic value.
- Strengthen production reliability, operational efficiency, and continuous improvement.

Who Should Attend

This course is designed for production engineers, petroleum engineers, field operations engineers, production supervisors, well performance specialists, facility engineers, and professionals responsible for managing oil and gas production operations.

It is particularly relevant to production and operations managers, field supervisors, asset team members, production optimization specialists, artificial lift engineers, flow assurance professionals, maintenance and reliability personnel, and engineers involved in production planning and performance management.

The program is also suitable for asset managers, engineering managers, operations leaders, and decision-makers who need to improve production performance, manage operational constraints, optimize existing assets, and achieve safe and sustainable production targets.

Learning Outcomes

- Upon completion of the course, participants will be able to:
- Explain the key principles and components of effective oil and gas production management.
- Develop integrated production plans and operating priorities.
- Evaluate well and field production performance using production data and trends.

- Conduct production surveillance and identify deviations from expected performance.
- Diagnose production losses and identify their technical and operational causes.
- Identify facility and well bottlenecks affecting production capacity.
- Evaluate artificial lift systems and identify opportunities for performance improvement.
- Assess water, gas, sand, corrosion, scaling, and flow assurance challenges.
- Coordinate well, facility, and surface production activities.
- Integrate production management with maintenance, reliability, and asset integrity.
- Use key performance indicators to monitor production efficiency and operational performance.
- Prioritize production interventions based on risk, impact, feasibility, and value.
- Develop practical production optimization initiatives.
- Improve multidisciplinary coordination and production decision-making.
- Establish continuous improvement practices for sustainable production performance.

Course Outline

DAY 01

Fundamentals of Oil & Gas Production Management

- Principles, objectives, and responsibilities of production management.
- Oil and gas production systems from reservoir to wellhead and surface facilities.
- Production planning, targets, operating constraints, and production allocation.
- Roles of reservoir, drilling, wells, production, facilities, operations, and maintenance teams.
- Production performance management and operational decision-making.
- Safety, integrity, reliability, and production continuity considerations.

PRACTICAL APPLICATION

Develop an integrated production management framework for a representative oil and gas asset.

DAY 02

Production Surveillance, Well Performance & Optimization

- Production surveillance principles and performance monitoring.
- Well production trends, pressure behavior, water cut, gas-oil ratio, and decline patterns.
- Well performance evaluation and identification of underperforming wells.
- Production loss analysis and identification of performance gaps.
- Artificial lift systems and production optimization opportunities.
- Well intervention prioritization and production improvement planning.

PRACTICAL APPLICATION

Analyze well production data and develop an optimization plan for underperforming wells.

DAY 03

Production Facilities, Flow Assurance & Operational Challenges

- Surface production facilities and their impact on field production capacity.
- Separation, treatment, compression, pumping, storage, and export systems.
- Flow assurance challenges, hydrates, wax, scaling, emulsions, and solids.
- Water production, gas handling, sand production, and facility constraints.
- Corrosion, erosion, fouling, and equipment-related production losses.
- Troubleshooting production and facility operating problems.

PRACTICAL APPLICATION

Identify facility bottlenecks and develop actions to improve production throughput and stability.

DAY 04

Production Optimization, Reliability & Performance Management

- Integrated production optimization and bottleneck management.
- Production capacity assessment and constraint analysis.

DAY 04 — CONTINUED

- Integrating production with maintenance and reliability strategies.
- Managing planned and unplanned production losses.
- Production performance indicators and operational dashboards.
- Risk-based prioritization of interventions and improvement initiatives.

PRACTICAL APPLICATION

Develop an integrated production optimization strategy for a field experiencing operational constraints.

DAY 05

Strategic Production Management & Continuous Improvement

- Strategic production planning and medium- and long-term production optimization.
- Managing multidisciplinary production teams and operational interfaces.
- Production risk management and decision-making under uncertainty.
- Evaluating production improvement opportunities and intervention priorities.
- Continuous improvement, lessons learned, and production performance reviews.
- Developing sustainable production management frameworks.

FINAL WORKSHOP

Develop an integrated oil and gas production management plan covering production targets, surveillance, well and facility optimization, bottleneck management, reliability, risk, performance indicators, and continuous improvement.

Register or Request More Information

Course page: <https://quest-training.com/courses/managing-oil-gas-production-training-course>

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