MERCURY

Essential Skills for Oil and Gas Managers and Supervisors



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Introduction:

The oil and gas industry is one of the most complex and dynamic sectors in the global economy, requiring managers and supervisors to possess a unique combination of technical knowledge, leadership abilities, and strategic thinking. As the industry navigates challenges like fluctuating market prices, geopolitical tensions, environmental concerns, and technological advancements, leaders must be equipped to guide operations efficiently and safely.

This Essential Skills for Oil and Gas Managers and Supervisors course aims to provide an overview of the critical skills for effective management, including operational oversight, risk management, safety culture development, and navigating complex contractual and commercial relationships. Through a blend of industry-specific knowledge and practical management techniques, participants will be empowered to lead teams, optimize processes, and ensure the long-term success of their organizations in the ever-evolving energy landscape.

The Essential Skills for Oil and Gas Managers and Supervisors course equips professionals such as maintenance supervisors in oil and gas, oil and gas operations managers, and field supervisors with the oil and gas skills to excel in their roles. Through oil and gas skills training, participants will develop the technical skills required in the oil and gas industry to manage operations. This course addresses the specific needs of oil and gas managers, production supervisors, and field operations managers by focusing on the practical and technical skills critical for success in the oil and gas industry.

Targeted Groups:

- Oil and Gas Managers.
- Supervisors in Oil and Gas Operations.
- Upstream, Midstream, and Downstream Team Leaders.
- Project Managers in Oil and Gas.
- HSE Managers and Supervisors.
- Operations Managers.
- Engineers transitioning into managerial roles.
- Professionals in Oil and Gas Supply Chain Management.
- Energy Sector Risk Managers.
- Oil and Gas Contract Administrators.

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Targeted Competencies:

By the end of this Essential Skills for Oil and Gas Managers and Supervisors training, the participant's competencies will be able to improve:

- Strategic Decision-Making.
- Leadership and Team Management.
- Risk Assessment and Management.
- Operational Efficiency Optimization.
- Financial Acumen in Oil and Gas Economics.
- Negotiation and Conflict Resolution.
- Safety Culture Development.
- Contract and Project Management.
- Environmental and Regulatory Compliance.
- Communication and Stakeholder Engagement.

Course Objectives:

At the end of this Essential Skills for Oil and Gas Managers and Supervisors course, the participants will be able to:

- Gain an overview of the Global Oil and Gas Industry, from discovery to production to consumption.
- Understand the geopolitics of oil and gas and the major challenges in the energy industry.
- Obtain an overview of Refining processes.
- Evaluate the primary uses of oil and gas and their significance within the global energy industry.
- Comprehend the roles of various organizations involved in the oil and gas industry, including national governments, international oil companies, service companies, regulators, and external non-oil bodies.
- Understand the objectives, functions, and commercial relationships between companies and organizations across the oil and gas supply chain, from upstream through downstream.
- Examine environmental issues and European Union plans for oil and gas target 2030.
- Assess organizations with a positive safety culture characterized by mutual trust, shared perceptions of safety, and confidence in preventative measures.
- Gain and enhance negotiating skills essential for the smooth running of the business.
- Explore alternative approaches to successfully negotiating within the oil and gas sector.

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Course Outline:

Unit 1: The Fundamentals of Fossil Fuels:

- The nature and formation of fossil fuels and oil reserves.
- The chemistry of petroleum.
- Characteristics of fossil fuels.
- Assay and properties.
- Measurement and characterization.
- Where do we find fossil fuels?
- Industries and uses.

Unit 2: Exploration and Production of Petroleum:

- Generation, migration, accumulation, and exploration of petroleum.
- Identification of common rocks and minerals.
- Ocean environment and plate tectonics.
- Traps and trapping mechanisms.
- Geophysical and Geochemical surveys.
- Offshore drilling and production.
- Exploratory drilling and testing of the oil and gas well.
- Casing and cementing the oil and gas well.
- Geologic classification types of reservoirs and reservoir drive mechanisms.
- Development of oil and gas fields.
- Estimation of reserves.
- Surface treatment and storage.
- Enhanced oil recovery techniques.

Unit 3: Transmission, Distribution, and Geopolitical Impacts:

- Distribution, transmission, and transportation of oil and gas.
- Geopolitics and world energy markets.
- The geopolitics of oil pipelines.
- OPEC and the future role of a cartel.
- Overview of world petroleum consumption, supply, and prices.
- Sustainable energy: myths and realities.
- The global oil and gas industry: composition, classification, and petroleum and natural gas properties.

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Unit 4: Transportation and Storage:

- Transportation methods: Pipelines and oil tankers.
- Case study - The Baku - Tbilisi - Ceyhan BTC pipeline.
- Storage facilities and tank farms.
- Tank farm operations.
- Commercial relationships between oil and gas production companies and downstream marketer organizations.

Unit 5: Introduction to the Petroleum Industry:

- The market for crude oil.
- The price of crude.
- The refining process.
- Product specifications and refinery complexity.
- Refining margins and profitability.
- Sales and marketing of petroleum products.
- Petrochemicals industry overview.

Unit 6: Petroleum Economics and Energy Finance:

- World petroleum consumption, supply, and prices: prospects for the future.
- Energy trading and commodities.
- Futures, options, and hedging strategies.
- A brief history of real options in oil and gas.
- Introduction to energy finance and economics.
- Developing and financing oil and gas projects.
- Oil and gas accounting methods.
- Discounted cash flow DCF and time-value considerations.
- Application of the present value and future value formulae NPV.
- Inflation, real, and nominal time value of money.
- Internal rate of return IRR, hurdle rates, and minimum acceptable rates of return.

Unit 7: Contracts, Joint Ventures, and Fiscal Regimes:

- Collaboration between NOCs and IOCs.
- Oil and Gas contracts and types of agreements.
- Concession agreements and Production Sharing Contracts PSC.
- Technical Service Contracts TSC and Joint Ventures.
- Similarities among fiscal systems.
- State participation in oil and gas ventures.
- Signature and production bonuses.
- Bidding for leases.

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Unit 8: Financial and Energy Risk Management:

- Introduction to Energy Risk Management.
- Types of risks in trading energy commodities.
- Geopolitical risks and opportunities.
- Risk and opportunity analysis.
- The nonlinearity and complexity of uncertainty in oil and gas.
- Carbon capture and environmental considerations.
- The future of the global oil and gas industry.

Unit 9: Evolution of a Safety Culture in Oil and Gas:

- Culture and safety in the oil and gas industry.
- Defining a value system.
- A new management safety system.
- Leadership and teamwork in safety.
- Understanding employee risk behavior.
- Assessing organizational culture about safety.
- Active listening and nonverbal communication.
- Presentation skills and communication techniques.
- Barriers to communication and overcoming them.

Unit 10: Successful Negotiation in Oil and Gas:

- Steps in the negotiation process.
- Overcoming negotiating fears.
- Making informed choices.
- Thinking creatively during negotiations.
- Coping with criticism and conflict resolution.
- Approaches to negotiation and defining roles.
- Creative bargaining techniques.
- BATNA Best Alternative to a Negotiated Agreement strategies.
- Relational influence and power dynamics.
- Negotiating with integrity and managing aggressors.
- Global negotiation strategies.