



Global Oil and Gas Management



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Introduction:

The oil and gas industry is multidimensional, technically challenging, capital-intensive, and frequently faced with unknowns and hazards. The complexity, price volatility, and competitiveness facing the petroleum business today are all on the rise. This course's main goals are to expose participants to a wide range of complex management issues that the upstream and downstream petroleum industries are currently dealing with and to improve their comprehension of how to successfully manage a business while utilizing cutting-edge innovative technologies.

Oil's price decline has a detrimental effect on upstream operations, but it improves the profitability of downstream activities since cheaper feedstock increases refinery profits. Another crucial aspect of the company is the integration of petrochemicals and refining to obtain higher efficiency.

Managing integrated Upstream and Downstream businesses with technically intensive areas such as, exploration, drilling, production, refining, petrochemicals, sales, distribution, and trading of oil, gas and refined products require several cross-functional skills that are essential to this competitive industry. All these multi-functional skills and business practices are seamlessly covered in this training course

Targeted Groups:

- Business Development managers
- Corporate Planning professionals
- Geoscience & Engineering professionals
- Refinery professionals
- Supply Planners & Scheduling professionals
- Government regulators
- Law professionals
- Tax & Finance advisors
- Auditing personnel
- Compliance officers
- Equity analyst and Bankers
- Joint Venture officers
- Negotiators and Contracting professionals
- Trading professionals

Course Objectives:

At the end of this course the participants will be able to:

- Gain the broadest perspective of the entire oil, gas and LNG business, from exploration, drilling, production, refining, petrochemicals, sales, marketing, and trading
- Achieve maximum understanding of the industry to reach the highest position on the corporate ladder
- Boost their understanding of the technical and economic efficiencies gained in the Upstream and Downstream applied through new technologies
- Master the petroleum economics, investment analysis, risk analysis, and petroleum project evaluation
- Evaluate Fiscal terms and conditions, and compare the World Fiscal systems to grasp deep business knowledge
- Gain understanding of Concessionary, Production Sharing, Service and Joint Venture Contracts in Upstream; and Sales, Marketing and Trading Contracts in Downstream
- Boost their understanding of the fundamentals of downstream business: refined product quality, blending & valuation of oil for trade, freight and netback calculation & refinery margins calculations, vessel chartering, pipelines & terminals, etc.
- Master the Total barrel economics, Oil market futures, hedging and futures, and price management considerations
- Evaluate the technical, commercial, legal, safety and environmental aspects of the oil business
- Discuss the technical terms, concepts and buzzwords with their peers and clients confidently

Targeted Competencies:

- The basics of Hydrocarbon Value Chain optimization from the prospect to burning tip that fuels the global economy and trade
- The essential concepts and best production practices of the international oil & gas supply, transportation, manufacturing of refined products, petrochemicals and trade in the petroleum and petrochemical industries
- Fundamentals of Fiscal terms and conditions, and comparison of World Fiscal Systems enabling participants to grasp the deep business knowledge
- Understanding of Upstream Concessionary, Production Sharing, Service and Joint Venture Contracts and Downstream Sales, Marketing, Trading Contracts that run the business of world's largest commodity - oil
- Mastering the petroleum economics, risk analysis, and petroleum project evaluation
- Demonstration of Upstream business-critical factors with "Oil Field Simulator", and Downstream business-critical factors with "Refinery Simulator", and Market Trading tools used at the World's Commodity Exchange Centers
- It seamlessly covers the wide array of critical business functions, processes, and appropriately deals with the business practices and tactics to build the necessary business acumen in the Upstream and Downstream segments of the Petroleum Industry

Course Content:

Unit 1: General Industry Overview & Basic Concepts:

- Introduction to Oil & Gas Industry
- Petroleum Industry Dynamics & Future Trends
- Oil & Gas Geology
- Oil & Gas Prospecting Exploration
- Drilling Operations

Unit 2: Upstream Success Factors:

- Technological Advances
- Well Evaluation
- Well Completions
- Reservoir Depletion Mechanisms
- Oil & Gas Surface Facilities
- Transportation
- Maintenance of Oil & Gas Facilities
- Oil & Gas Reserves

Unit 3: Profitably Managing Upstream Business:

- Oil & Gas Reserves
- Reservoir Management
- Crude Oil Refinery Products & Processes
- Legal Framework of the Industry
- Project Economics
- Oil Price Risk Management

Unit 4: Upstream Production Contracts & Fiscal Systems:

- Relationships between Oil Companies and Host Governments
- Understanding Petroleum Fiscal Systems
- Identification of different types of fiscal terms and their application
- Concession royalty/tax Contracts
- Production Sharing Contracts
- Service contracts and Joint Venture Contracts
- Review & Comparison of Different Fiscal Systems in the world for the Petroleum Industry
- Fiscal options and latest trends for Liquefied Natural Gas LNG projects

Unit 5: Petroleum Economics, Risk Analysis, and Project Evaluation:

- Petroleum dynamics - Global, Regional & OPEC production scenarios
- Profitability indicators for oil & gas business
- Comparison and investments selection criteria
- Corporate portfolio management and maximize returns
- Risk & Uncertainty analysis in capital investments
- Evaluate projects by risk-based economics
- Fundamental Considerations in Petroleum Project Evaluation
- Investment Decision-Making Techniques

Unit 6: Petroleum Refining, Refined Products & Petrochemicals:

- Introduction to Petroleum Downstream Industry
- Physical & Chemical properties of crude oil
- Crude oil selection criteria for refinery
- Essential of Petroleum Refining Industry
- Major refinery processes and refinery units
- Simple Hydroskimming Refinery
- Deep Conversion Coking Refinery
- Refinery Optimization

Unit 7: Global Oil Supply and Petroleum Economics:

- Making Downstream connection with Upstream Industry
- Essence of International Oil Supply - Global Reserves, Production & Trade
- Fundamentals of Oil Economics
- Fundamentals of Crude Oil Transportation - Tankers and Chartering
- Basic Principles in Pricing and Overview of Markets
- Crude Oil Markets
- Global Crude Oil Supply-Demand balance, and its impact on prices
- 50-Years history of Crude Oil Pricing, and its current pricing dynamics
- Marker crudes and crude oil Benchmarks

Unit 8: Downstream Value Chain Optimization:

- Essential Elements in Crude Oil Sales Contracts to Refineries
- Basic Crude Oil Refining and Advanced Refinery Upgrades
- Importance of Petrochemicals and its impact
- Refining and Petrochemicals Integration
- Value Chain Optimization and Maximizing Return on Investment
- Managing Contractual and Environmental Risks
- Pipelines, Storage and Transportation Logistics in Downstream
- Refinery Economics and Optimization of Downstream

Unit 9: Downstream Market Structures and Trading:

- Introductory Concepts in Oil Trading
- Interface with retailers
- Downstream Supply Chain management
- Total Barrel Economics
- Oil Market Derivatives - Futures, Forwards, Swaps, Option
- Price Volatility Exposure and its Defensive Practices

Unit 10: Downstream Petroleum Dynamics and Risk Management:

- Hedging - Risk Management
- Pricing Management
- Derivatives
- Examples of Oil & Gas Futures Contracts, Swaps, and Options
- Common mistakes by Oil & Gas Companies in Hedging
- A Guide to Developing A Corporate Fuel Risk Management Policy
- Challenges to Petroleum Industry and Trends in New Technology