

# GULF INSTITUTE



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TRAINING INSTITUTE IN THE GULF

# International Petroleum Business

## INTRODUCTION

- This interactive, applications-driven 5-day International Petroleum Business training seminar will highlight the added value in enhancing international petroleum business and in managing decision making.
- The business of oil and gas is multifaceted, technically complex, highly capital intensive and often confronted with potential capital risks and price risk uncertainties. Today's oil companies' are dealing with ever increasing levels of complexity and competition. The innovative technologies in the recovery of oil are also changing the landscape of petroleum industry. Integration of refining and petrochemicals to achieve greater efficiencies is yet another critical factor in the business. Managing international supplies, refining and trading of oil require several cross-functional skills. To achieve maximum effectiveness, managers and professionals must continually expand their business knowledge and sharpen their skills. Their strategies must include how to achieve the supply chain value maximization, and how to create and manage portfolios that can withstand the price volatility while maximizing profits.

### This training seminar will feature:

- The basics of oil and gas exploration, production, and its recovery economics to fully understand this global business that fuels the global economy
- The essential concepts and business practices of the international oil supply, transportation, refining, and trade in oil and gas industry
- Fundamentals of oil economics and of crude oil transportation
- Basic Refinery operations, economics and the environmental aspects
- Basic Principles in crude oil pricing and overview of crude oil and refined products markets
- Essential elements in crude oil and refined products sales contracts
- Supply logistics - major international pipelines, shipping routes, and choke points
- 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 competitive and low price environment

## OBJECTIVES

### By the end of this training seminar, participants will be able to:

- Gain broad perspective of global oil business, supply, and transportation, refining & trading
- Boost your understanding of the fundamentals of oil business: 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 oil business
- Confidently discuss the technical terms, concepts and buzzwords with your peers and clients

## TRAINING METHODOLOGY

- This International Petroleum Business training seminar will utilise a variety of proven adult learning techniques to ensure maximum understanding, comprehension and retention of the information presented. The daily workshops will be highly interactive and participative. Participants will learn by active participation throughout the seminar through the use of seminar materials, case study exercises, quizzes, training videos and discussion of business cases issues in their organizations.

## WHO SHOULD ATTEND?

This training seminar is suitable to a wide range of professionals but will greatly benefit:

- 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 Outline

### Exploration, Production, Supply and Petroleum Economics

- Introduction to the Seminar
- Introduction to How Oil was Formed
- Origin, Accumulation and Migration of Petroleum
- Essential Requirements For Hydrocarbon Accumulation
- Fundamentals of Oil & Gas Geology and Petroleum Engineering
- Introduction to Oil & Gas Geology
- Simple Anticline Structural Trap
- Barrier or Closure – Reservoir Traps - Reservoir Mapping
- Oil & Gas Drilling Techniques
- Types Of Drilling – Exploration, Delineation, Appraisal, Developmental, Maintain Potential Wells
- Drilling Circulatory System – Safety and Environmental Impact
- Well Logging and Well Completion
- Tools and Techniques for Evaluating Oil & Gas Wells
- Open and Cased Well Logs
- Functions of Well Casing
- Benefits of Horizontal Well over Vertical well - Multilateral Well Completions
- Essence of International Oil Supply – Global Reserves, Production & Trade
- Introduction to Global Oil Business - Exploration, Extraction, Refining, Marketing, Transportation
- Global Oil Resources – World Oil and Gas Reserves, Production of Oil and Gas
- Industry units – for the USA, Europe and Asia, Conversion factors
- Crude Oil Classifications
- Crude Oil Quality Indicators, Crude Oil Characterization by Assays
- Crude Oil Distillation – Refined Products
- Oil Industry Units and Conversion Factors
- Fundamentals of Oil Economics
- Delivered Price of Crude Oil – The Concept GPW (Gross Product Worth)
- Net Refining Margin Calculation
- Value of Crude Oil and the Determining Factors in Crude Selection
- Measures of Efficiency –DCFROR, Profitability Index, Unit Marginal Cost
- How to Determine Economic Limit of Oil & Gas Fields
- Investment Decision-Making Criteria

## Transportation, Refining and Marketing

- Fundamentals of Crude Oil Transportation – Tankers and Chartering
- International Oil Tanker Sizes, Tonnage
- Types of Charters and Charter Parties
- Freight Payment, Chartering Mechanism, Voyage Charter, Time Charter
- Roles of Ship broker, Shipping Agent, Bunkering, Arbitrage, Net Daily Contribution
- Basic Principles in Pricing and Overview of Markets
- Causes of Oil Price Volatility
- The History of Oil Price – Real and Nominal
- The Future of Oil Price - Oil Imports & OPEC's Production, & Consumption
- The Future of Oil Price - Global Reserves Replacement Ratio
- The Physical and Paper – Oil Markets
- Price Markers of the World – Crude Oil Benchmarks: WTI, Brent, Dubai / Oman, ASCI, OPEC Reference Basket
- Methods of Sale – Spot, Term
- Regional Pricing – North America, Europe & Asia
- Price Reporting Methodology – Price Report
- Crude Oil Markets
- History of Crude Pricing
- Location of Pricing
- Marker Crudes
- Refined Products Quality
- Crude Oil Refinery – Size and Configuration – Skimming, Catalytic, Thermal Cracking
- Refinery Yields by Crude Type, Refinery Margin Calculation, and Factors affecting Profitability
- Key Refinery Products and Specifications
- Need for Blending and Blending Exercise
- Prices at Pump, Oil & Gas Earnings Versus Other Industries, Return on Investments
- Refined Products Market
- Product Pricing Determinants
- Product Pricing Quotations
- Product Pricing Spec-base
- Product Pricing Assessments
- Fundamentals of Product Trading

## Contracts, Sales and Marketing Logistics

- Essential Elements in Crude Oil Sales Contracts
- The Objective, The Parts of Contract, and Contract Confirmation
- Attributes and Buyer / Seller Responsibilities with INCO Terms – FOB, CFR, CIF, DES
- Important Oil Contracts Clauses
- Payment and Security
- General Terms and Conditions
- Basic Refining II – Conventional Refinery Upgrading
- Cat Cracking
- Hydrocracking
- Visbreaking
- Coking
- Basic Refining III – Sulfur Reduction
- Sulfur Reduction Methods – Lighter Compounds and Heavier Compounds
- Hydroprocessing
- Sulfur Reduction Measures
- Other Sulfur Reduction Processes
- Contracts – Elements of Risk
- Identify Areas of Risk
- Credit Performance Risk – LOC, Standby LOC, Parent company Guarantee
- Operational Risks - Vessel nominations, Quantity and Quality, etc.
- Charter Party Risks
- Basic Refinery IV – Economics & Environmental Aspects
- Yields for Different Configurations
- Value Contributions for Different Configurations
- Investments Costs
- Environmental Considerations
- Primary Logistics
- Pipeline Transfers - Advantages and Disadvantages
- Pipeline Scheduling
- Pipelines Investment Considerations - Tariffs and Operating Economics
- Major Pipelines of the World
- Storages
- Losses – Net loss, In-Transit Loss, Inturn loss, Outturn Loss

## Market Structures and Trading

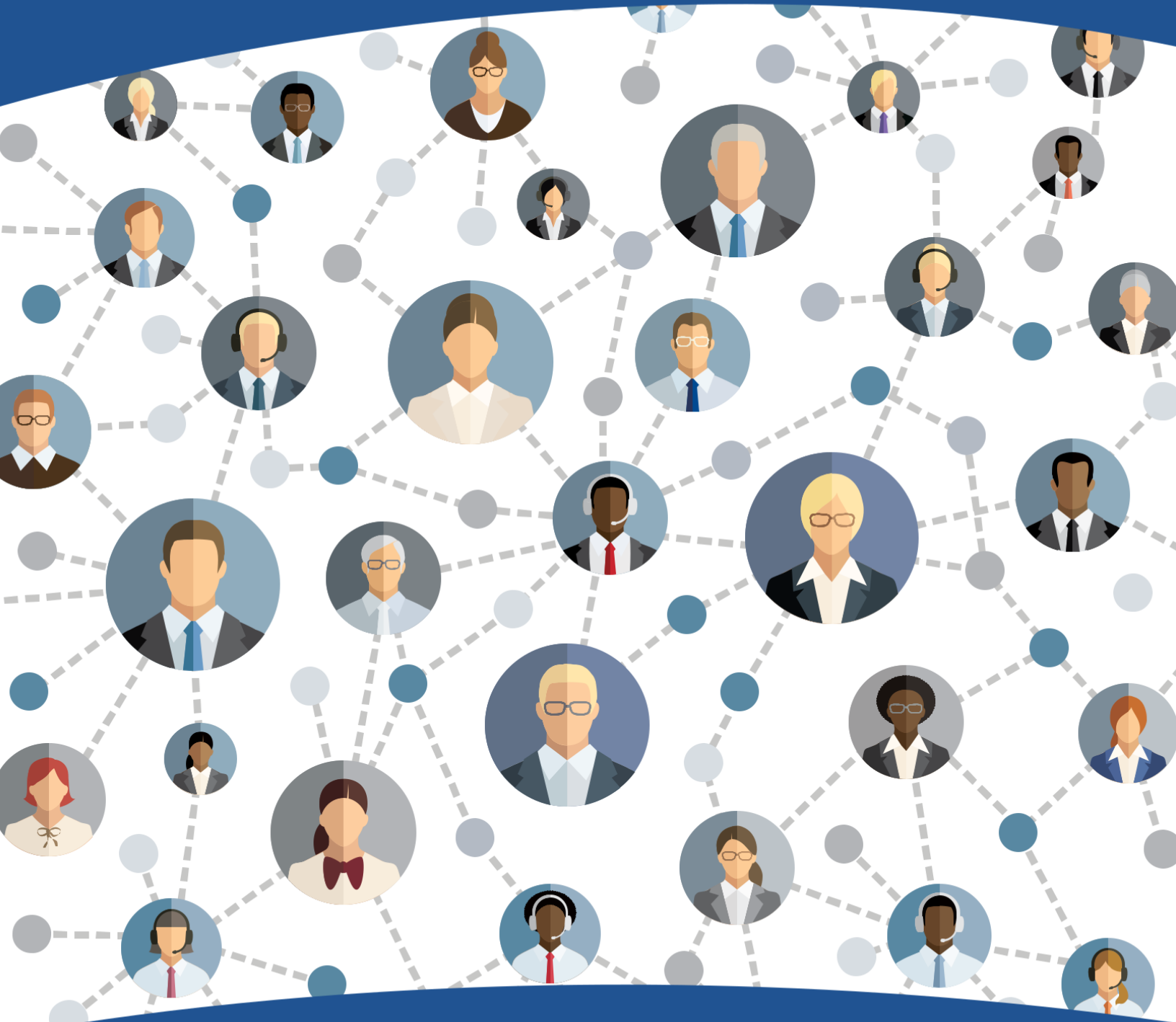
- Introductory Concepts in Oil Trading
- Players in the Oil Market
- Success factors in Trading
- Risk Factors in Trading
- Trading Objectives and Price Movements
- Market Structures – Contango and Backwardation
- Interface with Retailers
- Competitive Marketing – Primary and Secondary Supply
- The Value Chain – E&P to the Customer
- The Retail Market Place
- Fully Vertically Integrated Oil Company Model
- The Essential Success factors in Retailing
- Downstream Supply Chain Management
- The Essential Success Factors in Supply Management
- Total Barrel Economics
- Measures of Profitability
- Net Marketing Revenue – Refinery Netback
- The Cost of Supply and Total Barrel Margin
- Transfer price – An Alternate Value
- Typical Oil Company, Distribution and Marketing Costs
- Maximizing Corporate Profits
- Oil Markets – Futures
- Market Differences – Forwards and Futures
- Characteristics of Futures Contract
- What is Futures Market?
- What is Margin Money?
- How Futures are used?
- Price Exposure
- Trading For Profit
- Taking Buy or Sell Position – Long vs. Short
- Priced vs. Unpriced Exposure
- What is Unpriced Purchase and Unpriced Sale?

## Petroleum Dynamics and Risk Management

- Hedging – Risk Management
- Use of Futures and Forward Markets
- Example of Hedging
- Removal of Absolute Risk – Introduction of Basis Risk
- Pricing Management
- What is Price Management?
- Price Management Example
- Price Management Outcome
- Derivatives
- What are Swaps?
- Example of Swap Transactions
- What are Options?
- Example of Option Transactions
- Attributes of Swaps and Options in Oil & Gas Industry
- 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
- Legal and Regulatory Issues
- International
- International Aspects of Oil Trading
- General Trade Laws
- World Trade Organization
- United States
- Oil Trading in the US
- General Commercial
- Anti-Trust Legislation
- Sovereign Immunity Act
- FCPA
- Commodity Trading Law
- United Kingdom
- Oil Trading in the UK



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