Crude Oil Mastery: Refining, Trading, Pricing, Logistics & Risk Management

28 Sep - 09 Oct 2025 Johannesburg





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Ref.: 66_38201 Date: 28 Sep - 09 Oct 2025 Location: Johannesburg Fees: 10000 Euro

Course Overview:

The "Crude Oil Refining, Trading, Pricing & Risk Management Training Course" offers a deep, strategic understanding of the full petroleum value chain. Designed for professionals navigating the complex landscape of crude oil, this course covers key sectors: refining technologies, global pricing structures, physical and paper oil markets, trading logistics, and advanced risk mitigation. Through real-world case studies and regulatory frameworks, participants will gain practical insights into benchmark systems like WTI, Brent, and Dubai, contract structures involving INCOTERMS, pipeline and shipping logistics, and price volatility drivers. It integrates vital topics such as hydrocracking, sulfur reduction, market structures like contango/backwardation, crack spreads, swaps, options, and futures in oil trading. By mastering total barrel economics, refining profitability analysis, and OPEC vs. non-OPEC strategies, attendees will leave with a robust command of price risk management, trading legalities, and global energy sector financial exposure. This course emphasizes applied knowledge over theory, equipping learners with tools and best practices critical for success in high-stakes energy trading and operations.

Target Audience:

- Crude oil traders and commodity analysts
- Petroleum economists and energy risk managers
- Refinery planners and operations managers
- Energy legal and compliance officers
- Chartering and logistics coordinators
- Oil sales, contract, and procurement specialists

Targeted Organizational Departments:

- Oil Trading and Risk Management
- Refining and Downstream Operations
- Contract and Legal Compliance
- Pricing and Market Analytics
- Chartering and Marine Logistics
- Corporate Strategy and Investment Planning



Targeted Industries:

- Oil & Gas exploration and production companies
- Petroleum refining and distribution firms
- Trading houses and commodity investment firms
- Energy logistics and shipping companies
- Financial institutions dealing in energy derivatives
- National oil companies and regulators

Course Offerings:

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

- Evaluate international oil benchmarks and pricing systems WTI, Brent, Dubai
- Apply hedging techniques using options, swaps, and futures
- Assess crude oil refining configurations and yields
- Interpret global oil contracts, INCOTERMS, and legal risks
- Analyze physical and paper oil markets and manage volatility
- Understand sulfur reduction technologies and environmental economics
- Manage downstream logistics, supply chains, and transfer pricing
- Navigate total barrel economics and refining profitability models

Training Methodology:

This training course combines expert-led instruction with hands-on activities to ensure deep engagement and application of skills. Methods include:

- · Interactive lectures with real-time market data analysis
- Case studies on price volatility, OPEC decisions, and refinery economics
- Role-playing scenarios for charter party negotiation and legal dispute resolution
- Simulation-based exercises in futures/options trading and risk exposure
- Discussion sessions on energy sector regulations and financial strategy This multifaceted approach ensures participants apply learning to current oil market realities, balancing theory with direct industry relevance.

Course Toolbox:

- E-book on oil contracts and pricing mechanisms
- Templates for refinery margin calculations and supply cost analysis
- Charts of benchmark pricing and market structures
- Sample INCOTERM clauses and contract risk maps
- Practical insights into software/tools used in real energy operations no software provided

Course Agenda:



Day 1: Global Crude Oil Industry and Pricing Systems

- Topic 1: Crude Oil Trading: Fundamentals and Market Role
- Topic 2: The Evolution of International Oil Pricing Systems
- Topic 3: Crude Oil Benchmarks: WTI, Brent, Dubai/Oman, ASCI
- **Topic 4:** Absolute, Grade, Time, and Location Differentials
- Topic 5: Spot vs. Term Sales and Regional Pricing
- **Topic 6:** Price Reporting Methodologies and Agencies
- Reflection & Review: Comparing Benchmark Systems & Case Examples

Day 2: Physical Crude Oil Markets and Logistics

- Topic 1: Trading Physical Crude Oil and Its Logistics
- Topic 2: Fundamentals of Crude Oil Transportation
- Topic 3: Tanker Sizes, Chartering Mechanisms, and Tonnage
- Topic 4: Charter Parties: Voyage, Time, Bareboat
- **Topic 5:** Role of Shipbroker, Shipping Agent, and Bunkering
- Topic 6: Arbitrage, Net Daily Contribution, and Freight Payment
- Reflection & Review: Freight Simulation and Supply Chain Analysis

Day 3: Oil Price Volatility and Refining Economics

- Topic 1: Oil Price Volatility: Historical and Current Drivers
- **Topic 2:** The History of Oil Price Real and Nominal
- Topic 3: Refinery Types: Skimming, Catalytic, Thermal Cracking
- **Topic 4:** Refinery Yields by Crude Type & Margin Calculations
- **Topic 5:** Key Refinery Products and Specifications
- Topic 6: Blending Requirements and Practical Exercise
- Reflection & Review: Refining Scenarios & Margin Workshop

Day 4: Crude Oil Contracts and Legal Frameworks

- Topic 1: Essential Elements in Crude Oil Sales Contracts
- Topic 2: INCOTERMS in Oil Trading: FOB, CFR, CIF, DES
- **Topic 3:** Contract Confirmation, Payment & Security Terms
- Topic 4: Key Contract Clauses & General Terms & Conditions
- Topic 5: Legal and Regulatory Issues in Oil Trading
- Topic 6: International Legal Practices: US, UK, Singapore
- Reflection & Review: Contract Negotiation Role Play



Day 5: Oil Derivatives and Hedging Instruments

- Topic 1: Price Risk Management: Hedging the Crude Oil Price
- Topic 2: Risk Measurement and Financial Exposure
- **Topic 3:** The Forward Market and Future Contracts
- Topic 4: The Swaps Market and Oil Price Swaps
- Topic 5: The Options Market and Strategic Use of Options
- **Topic 6:** Crack Spreads and Their Trading Implications
- Reflection & Review: Hedging Strategy Case Simulation

Day 6: Advanced Refining, Upgrading & Environmental Considerations

- Topic 1: Conventional Refinery Upgrading: Cat Cracking & Hydrocracking
- Topic 2: Visbreaking, Coking, and Residue Management
- Topic 3: Sulfur Reduction: Methods for Light & Heavy Compounds
- **Topic 4:** Hydroprocessing & Environmental Measures
- **Topic 5:** Refining Economics and Value Contributions
- Topic 6: Investment Costs and Regulatory Factors
- Reflection & Review: Environmental Impact Evaluation Exercise

Day 7: Downstream Markets and Product Pricing

- **Topic 1:** Refined Products Market and Supply Chain
- Topic 2: Product Pricing Determinants and Quotations
- **Topic 3:** Spec-based Pricing and Market Assessments
- **Topic 4:** Total Barrel Economics and Transfer Pricing
- **Topic 5:** Netback Pricing and Marketing Profitability
- **Topic 6:** Retail Pricing and Downstream Integration
- Reflection & Review: Product Pricing Assessment Drill

Day 8: Financial Risk, Credit, and Operational Exposure

- Topic 1: Identifying Risk in Oil Trading Operations
- Topic 2: Credit Risk Management: LOCs and Guarantees
- Topic 3: Operational Risks: Vessel Nominations, Quantity, Quality
- Topic 4: Charter Party Risks and Contractual Penalties
- Topic 5: Market Fundamentals & Price Drivers
- Topic 6: Controlling Financial Risk in Oil Trade
- Reflection & Review: Risk Map Development



Day 9: Paper Oil Markets and Market Structures

- **Topic 1:** Introduction to Paper Markets: Futures vs. Forwards
- Topic 2: Key Features of Futures Contracts
- Topic 3: Margin Money, Exposure, and Trading for Profit
- Topic 4: Long vs. Short Positions and Trade Timing
- Topic 5: Contango and Backwardation Structures
- Topic 6: Physical vs. Unpriced Exposure in Market Dynamics
- Reflection & Review: Futures Trading Simulation

Day 10: Strategic Planning and Competitive Oil Marketing

- **Topic 1:** Strategic Planning in Volatile Energy Markets
- Topic 2: Competitive Marketing: Primary vs. Secondary Supply
- Topic 3: The Retail Marketplace & Integrated Oil Models
- Topic 4: The Value Chain: E&P to End User
- Topic 5: Measures of Profitability & Maximizing Corporate Returns
- **Topic 6:** OPEC vs. Non-OPEC Strategy and Market Influence
- Reflection & Review: Strategic Scenario Presentation & Feedback

FAQ:

What specific qualifications or prerequisites are needed for participants before enrolling in the course?

There are no formal prerequisites. However, participants with a background in oil trading, refining, logistics, legal, or energy economics will benefit most.

How long is each day's session, and is there a total number of hours required for the entire course?

Each day's session lasts approximately 4–5 hours. The full course spans 10 days, totaling 40–45 hours of instruction.

What is the difference between physical and paper oil markets?

Physical markets involve the actual buying and selling of crude or refined products, while paper markets involve contracts and derivatives like futures, swaps used for hedging or speculation.



How This Course is Different from Other Crude Oil Courses:

Unlike traditional courses focused on either refining or trading, this program integrates all major facets of the crude oil sector—refining technologies, pricing systems, chartering, energy finance, and legal frameworks—into one cohesive learning journey. It reflects current market realities such as OPEC/non-OPEC dynamics, futures trading strategies, and sulfur regulations. Practical tools like refinery margin calculators, contract clause templates, and pricing strategy exercises are included to enhance applicability. This course stands out by ensuring that participants walk away with not just theoretical knowledge, but practical capabilities in crude oil risk management, profitability analysis, and global trade logistics. Every session emphasizes applied skills aligned with the latest benchmarks, compliance mandates, and trading mechanisms.



Training Course Categories



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Governance, Risk and Compliance Training Courses



Human Resources Training and Development Courses



IT Security Training & IT Training Courses



Leadership and Management Training Courses



Legal Training, Procurement and Contracting Courses



Maintenance Training and Engineering Training Courses



Training Course Categories



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Oil & Gas Training and Other Technical Courses



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Nairobi - Kenya



Paris - France



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Sharm El-Sheikh -Egypt



Tbilisi - Georgia



Tokyo - Japan



Vienna - Austria



Zanzibar - Tanzania



Training Cities



Zoom - Online Training

WHO WE ARE

Agile Leaders is a renowned training center with a team of experienced experts in vocational training and development. With 20 years of industry experience, we are committed to helping executives and managers replace traditional practices with more effective and agile approaches.

OUR VISION

We aspire to be the top choice training provider for organizations seeking to embrace agile business practices. As we progress towards our vision, our focus becomes increasingly customer-centric and agile.

OUR MISSION

We are dedicated to developing valueadding, customer-centric agile training courses that deliver a clear return on investment. Guided by our core agile values, we ensure our training is actionable and impactful.

WHAT DO WE OFFER

At Agile Leaders, we offer agile, bite-sized training courses that provide a real-life return on investment. Our courses focus on enhancing knowledge, improving skills, and changing attitudes. We achieve this through engaging and interactive training techniques, including Q&As, live discussions, games, and puzzles.

