

2019 UNIST 하반기 융합경영대학원 ECTFE 단기과정 안내

ECTFE PROFESSIONAL ENERGY TRADER TRAINING PROGRAM

1. 프로그램 목적 및 특징

- UNIST ECTFE Professional Energy Trader Program은 경제, 경영, 공학 등의 지식을 기반으로 에너지 금융 시장 관련 실무 기술을 함양한 인재 양성을 목적으로 함
- 본 프로그램은 UNIST 융합경영대학원 ECTFE 전공 석사과정의 정규 과목인 동시에 관련 업계 종사자 재교육을 위해 강의를 공개하고 있음
- 싱가포르 에너지 트레이딩 관련 업체(JTD Energy Service, Argus Media)에서 전문가를 파견하여, 최신 국제 에너지 시장 데이터로 실습을 포함한 수업이 진행됨
- 모든 강의는 100% 영어로 진행됨

2. 프로그램 운영

- 수강 대상
 - 에너지 분야 관련 업계 종사자
 - 에너지 상품 트레이딩 관련 업무 수행자
 - 그 외 본 과정에 관심 있는 자
- 모집인원: 11명 (선착순 마감)
- 수강료: 각 강의 당 150만원 (※강의별로 선택적 신청 가능)

3. 강의 정보

- 개설 강의
 - Physical Crude & Products Trading
 - Trading Simulation, Paper Trading and Price Risk Management
- 강의 개요

구분	강의 1	강의 2
강의명	Physical Crude & Products Trading	Trading Simulation, Paper Trading and Price Risk Management
강사명 (소속)	John T. Driscoll (JTD Energy Services)	Shee S. Kuen (Argus Media)
기간	10.14.(월) ~ 10.18.(금)	10.21.(월) ~ 10.25.(금)
이수시간	5일*4시간(총20시간)	5일*4시간(총20시간)
장소	UNIST 산학융합캠퍼스 212호	UNIST 산학융합캠퍼스 212호

- 강사 및 강의내용 세부정보
- 붙임파일 1,2 별도 참고



4. 접수 방법

- 접수기간: 2019.09.16.(월) ~ 2019.10.04.(금), 3주
- 서류제출
 - 융합경영대학원 홈페이지(<http://gsim-kor.unist.ac.kr>) 방문
 - [학사연구] → [단기과정] → [ECTFE Professional] → [신청서 다운로드]
 - 교육신청서, 개인정보동의서 각 작성
 - 접수 기간 이내 이메일(ectfe@unist.ac.kr)로 제출
- 수강료 납부
 - 접수기간 이내 수강료 납부
 - 경남은행 540-32-0002060(예금주: 울산과학기술원)
 - ※ 수강료 납부 완료 후, 담당자에게 연락하여 입금확인 필수

5. 이수 완료 시 특전

- 수료증 발급: 각 강의 75% 이상 출석 시, 강의별 수료증 발급
- 학점인정: 추후 UNIST 융합경영대학원 ECTFE 석사과정에 입학 시, 수료한 과목에 한해 해당 학점을 인정

강의명	교과목 코드	교과목명	인정학점
Physical Crude & Products Trading	ECT535	Energy Trading	3학점
Trading Simulation, Paper Trading and Price Risk Management			

Physical Crude & Products Trading

John T. Driscoll
JTD Energy Services

1976년 Stanford University를 졸업하고, ARCO에서 Product Operator로 근무를 시작하였다. 싱가포르로 이주하면서 Maxus(1985년) 및 Mobil Asia(1997년)에서 팀장으로 근무하였다. 이후 5년 동안 Argus Media Asia에 소속을 두었고, 2004년 GS Caltex 싱가포르에서 product trading, risk management, market analysis 관련 업무를 했다. 2013년 그의 자회사 JTD Energy Services를 설립하여, Oil Trading, Pricing and Risk Management관련 Consulting을 제공하고 있다.

1st DAY	<p>Physical Trading and Contracts</p> <p>Major Physical Exposures and Costs REVIEW</p> <ul style="list-style-type: none"> - Units of Measurement and Conversions - EIA and JTD Conversion Calculators - 5 D's: Delivery Dates, Delays, Demurrage, Dues, Deadspace - 4 I's: Intransit Loss, Insurance, Interest, Inspection - Supply Chain Inventory: From Source to Destination <p>INCOTERMS: Seller and Buyer Responsibilities</p> <ul style="list-style-type: none"> - Four Main INCOTERMS Groups: C, D, E, F - Delivery, Title and Risk of Loss - INCOTERMS and Contracts <p>Physical Contract Terms</p> <ul style="list-style-type: none"> - Contract Formation Process - Key Contract Parameters: Spot Trades and Term Contracts - Contract Structure and Terms: Checklist - Commercial Terms - Crude Oil vs Product Quality: Assays and Inspection Testing - General Terms and Conditions - Governing Law and Arbitration - Legal Issues and Case Studies <p>End of Session Quiz</p>
2nd DAY	<p>Physical Oil Transactions</p> <p>Direct Negotiation</p> <ul style="list-style-type: none"> - Steps and Basics - Contract Optionality - ZOPA, BATNA and WAP - Communications and Conventions <p>Tenders and Auctions</p> <ul style="list-style-type: none"> - Open and Closed - Single Round vs Multiple Round - English vs Dutch <p>Futures Exchanges and Physical Delivery</p> <ul style="list-style-type: none"> - Major Oil Futures Exchanges

	<ul style="list-style-type: none"> - Exchanges for Physical (EFP) - Physical Futures Payout Profile <p>Forward Markets</p> <ul style="list-style-type: none"> - The Brent Complex - BFOE Forwards: Bookouts and Delivery - Platts Dubai Partials - Platts Market on Close (MOC): Trading and Price Discovery <p>Intermediate Negotiation</p> <ul style="list-style-type: none"> - OTC Brokers - Commodity Trading Firms - Banks - Agents <p>Caveats and Warning Signs</p> <ul style="list-style-type: none"> - Principal/Agency Conflicts - Rogue Traders - Phishing and High Frequency Trading (HFT) <p>Case Study: DME Futures Squeeze, 2018</p> <p>End of Session Quiz</p>
<p>3rd DAY</p>	<p>Physical Trading, Price Risk Management and Hedging</p> <p>Oil Trading Models</p> <ul style="list-style-type: none"> - Proprietary/Speculative - System Based - Hybrid - Integrated Supply and Trading (IST) <p>Oil Market Participants</p> <ul style="list-style-type: none"> - Vertical Integration: Majors, National Oil Companies - Independent Oil Companies - Upstream: Exploration, Production - Midstream: Transportation, Shipping - Downstream: Refining, Consumption - Intermediaries: Commodity Traders, Banks, Funds, Brokers <p>What is Risk?</p> <ul style="list-style-type: none"> - ISO 31000 Definition - Positive and Negative Risk <p>Macroeconomic Risks</p> <ul style="list-style-type: none"> - PESTLE Model - Case Study: Trump Tweets <p>What is Hedging?</p> <ul style="list-style-type: none"> - Hedging vs Speculation - Regulatory Definition: Commitment of Traders (COT) Report - Hedging Profiles: Sell-Side and Buy-Side - Customer Flow Hedging: The Hacienda Hedge - Hedging Agendas: Operational, Tactical and Strategic

	<p>Physical Oil Price Risks and Exposures</p> <ul style="list-style-type: none"> - Flat Price Risk - Basis Risk - Spread Risk - Delivery Risk <p>Hedging Exercises</p> <p>Hedging and Risk Management Checklist</p> <p>Market Structure</p> <ul style="list-style-type: none"> - Forward Curves, Structure and Timing - Contango and Backwardation - Exercise: Computing a Forward Swap Strip - Market Structure, Inventory and Risk Management <p>Case Study: MG 1994 – Stack and Roll Hedging</p> <p>Team Exercise: Compute Daily MOPS Strip and Price Values</p> <p>End of Session Quiz</p>
<p>4th DAY</p>	<p>Arbitrage Strategies: Space, Time, and Form</p> <ul style="list-style-type: none"> - Space Arbitrage: Location Trades and Long Haul Shipments - Time Arbitrage: Contango Carry Play - Form Arbitrage: Blending and Processing <p>Exercise: Long Haul Space Arbitrage</p> <ul style="list-style-type: none"> - Vitol: Moving from point A to point B - Long Voyages and Hedging - HSFO Arbitrage: Rotterdam to Singapore <p>Exercise: Contango Carry Time Arbitrage</p> <ul style="list-style-type: none"> - Short Term Singapore Carry Play - Long Term Floating VLCC Crude Play <p>Exercise: Fuel Oil Blending Form Arbitrage</p> <ul style="list-style-type: none"> - Blending Incentives and Optimizations - Simple Linear Blending Model - Case Study: IMO 2020 - Blending Caveats and Issues - Case Study: IMO 2020 <p>Team-Based Interactive Exercise: Crude Oil Cargo Negotiation</p> <p>End of Session Quiz</p>
<p>5th DAY</p>	<p>Integrated Operations Supply and Trading (IOST)</p> <p>Live Platts Market on Close (MOC) Exercise</p> <p>Platts MOC and Optionality</p> <ul style="list-style-type: none"> - MOC Delivery Points - Operational Challenges - Good and Bad Optionality - Resources, Variables and Constraints <p>Integrated Supply Trading and Optimization (IOST)</p>

- Trading Organizations: The Silo Effects
- The Information Advantage
- Mission Critical Intelligence in Trading Firms
- Shipping and Trading Optimization
- Economies of Scale

Case Study: LSFO Blending and Shipment into Taiwan

Interactive Class Exercise: Korean HSFO Tender

Challenges: Technology, Ethics and Regulation

- High Frequency Data
- High Frequency Trading
- Trading Disasters
- Regulation

End of Session Quiz

Trading Simulation, Paper Trading and Price Risk Management

Shee S. Kuen 20년 이상 에너지 산업계에 종사하고 있다. 주로 crude oil, refined products, bunker fuel, shipping 트레이더로 활동하였으며, physical cargo와 paper markets 트레이딩 경험이 있다. 원유상품 트레이딩 뿐만 아니라 가격결정, 마케팅 분석, stock control 등 다양한 분야에서 활약하였고, 현재 Argus Media Singapore에서 Associate Consultant로 근무하고 있다.

1st DAY	<p>Derivatives Trading</p> <p>Types of derivatives – swaps/futures/options</p> <p>Market participants</p> <ul style="list-style-type: none"> - Role of oil producers (independent and government) - Role of consumers (eg airlines, shippers) - Role of traders - Role of hedge funds - Role of banks - Role of investors (retail and institution) <p>End of Session Quiz</p>
2nd DAY	<p>Mechanics of derivatives trading (Oil and Freight FFAs)</p> <ul style="list-style-type: none"> - Electronic trading - Function of exchanges and clearing members - OTC via voice brokers - Electronic vs OTC - Time spread simulations <p>Purpose of Derivatives</p> <p>Risk management/hedging tool for physical traders of crude oil and refined products and consumers/producers</p> <p>Floating prices and hedging</p> <ul style="list-style-type: none"> - Hedging physical cargoes game - Swaps and hedging exposure - Geographies and arbitrage spreads - Gasoil arb spreads <p>End of Session Quiz</p>
3rd DAY	<p>As a speculative/investment instrument</p> <ul style="list-style-type: none"> - Different type of cross-product spread trading - Time spread, location spread, cracks and what drives these spread and how to trade them profitably - Directional bets and importance of technical analysis <p>What drives derivatives pricing</p> <ul style="list-style-type: none"> - Understanding contango and backwardation - How market structure affects trading decisions - How macro events (geopolitics/economy/central banks) affect prices <p>End of Session Quiz</p>

<p>4th DAY</p>	<p>Pricing mechanisms (futures/swaps/options)</p> <ul style="list-style-type: none"> - Interaction between paper and physical markets - How physical markets sets price of swaps/futures - How to calculate swap pricing <p>Depth and Liquidity of the different paper markets and how it affects hedging decisions and opportunities.</p> <ul style="list-style-type: none"> - Risk Controls <p>Mark to market – why it is important</p> <p>Value at Risk</p> <p>Drawdowns</p> <p>End of Session Quiz</p>
<p>5th DAY</p>	<p>Use of paper in derivatives markets</p> <ul style="list-style-type: none"> - The instruments and hedging - Basis risk - Spread trading - CFDs and DFLs - EFP and EFs mechanism <p>Technical Analysis</p> <p>Use of charting for trading derivatives</p> <p>Moving averages, RSI, Fibonacci, trend channels</p> <p>Open interest of speculative length/shorts and how it affects the market</p> <p>Day trading using technical analysis</p> <p>End of Session Quiz</p>