ENTRIMA

ALL eLEARNINGS, COURSES & EXAMS
+ STUDY MATERIALS

LEARNING PLATFORM

MARKETS & TRADING

TRAINING FOR PROFESSIONALS IN
THE COMMODITY & ENERGY MARKETS

ONLINE CURRICULUM

CURRICULUM – *ALL TRAINING COURSES*

COURSES vs. ONLINE ORACLE

Apart from following Courses and taking Exams, the Learning Platform can also be allocated as Online Oracle. After all, one can scan with the search function for a topic amongst all individual video lessons for a specific process, a certain concept or particular terminology and be provided with a list of videos that relate. This way, the learning platform can be used to master content and context in a structured way and in a time efficient manner, but also to be consulted when at work for ad hoc, instant support, after which one can continue with the job that has to be done.

THE ONLINE LEARNING ENVIRONMENT

COURSES

ANIMATION-STYLE VIDEO LESSONS ON A WIDE RANGE OF TOPICS

CONCEPTS, PROCESSES & TERMINOLOGY EXPLAINED IN A NUTSHELL

COVERAGE BY VIDEO LESSONS
- ALL INCLUDING EXAMINATION & CERTIFICATION

COURSE:
COMMODITY MARKETS

MARKETS

This course explains what a markets is and how it can be defined. The crash course includes videos about various ways to classify markets. Attention is given to wholesale and retail markets and the differentials between them. Likewise applies to spot and term contacts, or physical and financial markets. It is also explained what balancing markets concern and what the role of transmission system operators is in that field. Last, but not least, it is set out what granularity concerns, which is specifically applicable for electricity and gas contracts.

This course covers the following video lessons:

1. Commodity markets – Introduction
2. Commodity markets – Overview
3. Commodity markets – Physical versus financial markets
4. Commodity markets – Liberal versus regulated markets
5. Commodity markets – Wholesale & retail markets
6. Commodity markets – Spot & forward markets
7. Commodity markets – Spot markets – Intraday & day ahead markets
8. Commodity markets – Term contracts
9. Commodity markets – Granularity
10. Commodity markets – Balancing markets
11. Commodity markets – Market participants

A. Examination
B. Certification

❖	Level:	Basic	No prerequisites
❖	Intensity:	25 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
MARKET PARTICIPANTS

MARKETS

This course covers the different actors in the commodity and energy markets. It is set out what characterises these parties. In addition attention is given to their objectives and the purpose of them entering the markets.

This course covers the following video lessons:

1. Introduction
2. Commodity trading firms
3. Energy companies
4. Oil & gas companies
5. Coal producers
6. Electricity producers & suppliers
7. Banks
8. Arbitrary naming

A. Examination
B. Certification

❖ Level:	Basic	No prerequisites
❖ Intensity:	10 minutes	Including examination
❖ Language:	Voice & text	English
❖ Including:	Examination	Certification upon passing

COURSE:
CORPORATE FINANCE & CAPITAL MARKETS

MARKETS

This course sets out how companies finance their business and how the capital markets allow them to cope with such. It is set out how a firm can get working capital in place to fund the corporate activities. Attention is also given to the role of the treasury function, equity and debt securities, and credit ratings.

This course covers the following video lessons:

1. Capitalisation
2. Asset & liability management
3. Treasury management
4. Money markets & capital markets
5. Loans & the role of financiers
6. Corporate bonds & shares
7. Credit rating

A. Examination
B. Certification

❖	Level:	Basic	No prerequisites
❖	Intensity:	10 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
FOREIGN EXCHANGE RATES & FX MARKETS

MARKETS

This course covers the exchange of one currency for another and the ratio in which this takes place. It is set out how this price of currencies, or foreign exchange (FX) rate, is impacted. The lessons explain the different market conventions in the FX markets and, in addition, attention is given to FX trading.

This course covers the following video lessons:

1. Introduction
2. FX rates & their drivers
3. Spot & forward FX markets
4. Pricing & currency pairs
5. Price quotations
6. Settlement of FX deals
7. ISO codes or SWIFT codes
8. CLS Bank
9. Quotes & market conventions
10. Direct & indirect quoted FX rates
11. Cross-rates – Single crossing
12. Cross-rates – Double crossing
13. Equally quoted currencies

A. Examination
B. Certification

❖	Level:	Basic	No prerequisites
❖	Intensity:	25 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
INTEREST RATES & MONEY MARKETS

MARKETS

This course covers the money markets. It sets out what interest concerns, how it can be calculated and what conventions apply in the markets. Attention is given to interbank offered rates and interest rate benchmarks, and day count convention. Also covered are related concepts, processes and terminology.

This course covers the following video lessons:

1. Introduction
2. Basis points
3. Calculations with interest rates
4. Risk-free rate
5. Interest rate benchmarks
6. LIBOR
7. The LIBOR scandal
8. EURIBOR, EONIA & EURONIA
9. Money markets conventions – Day count conventions
10. Interest rate calculation methods – Simple interest rate
11. Interest rate calculation methods – Annually compounding interest rate
12. Interest rate calculation methods – Continuously compounding interest rate
13. Interest rate calculation methods – Natural logarithm & exponential function

A. Examination
B. Certification

❖	Level:	Basic	No prerequisites
❖	Intensity:	25 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
COMMODITIES

This course sets out some of the basics regarding natural resources and classifies different groups of natural resources. Analogously, commodities are set out and classified. Last, but not least, attention is given to the supply chain and some related concepts, activities and terminology.

This course covers the following video lessons:

1. Natural Resources – Definition
2. Natural Resources – Categories – Ubiquitous versus localised resources
3. Natural Resources – Categories – Biotic versus abiotic resources
4. Natural Resources – Categories – Renewables versus non-renewables
5. Natural Resources – Categories – Actual versus potential resources
6. Natural Resources – Natural resource management
7. Commodities – Definition
8. Commodities – Asset classes
9. Commodities – Classifications
10. Commodities – Indirect investments
11. Commodities – Commoditisation
12. Commodities – Capacity as tradable product
13. Commodities – Complexity of commodity markets
14. The supply chain – The value chain
15. The supply chain – Up-, mid- and downstream
16. The supply chain – Time horizon
17. The supply chain – Trading activities

A. Examination
B. Certification

❖	Level:	Basic	No prerequisites
❖	Intensity:	40 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
METALS

PRODUCTS

This crash courses concerns the basics of metals. It covers the fundamentals of corrosive and non-corrosive metals. Attention is also given to the pricing of metals.

This course covers the following video lessons:

1. Introduction
2. Chemistry
3. Exploitation, extraction & processing
4. Alloys
5. Consumption
6. Precious metals
7. Gold
8. Industrial metals
9. Rare earth metals
10. Price driving factors

A. Examination
B. Certification

❖	Level:	Basic	No prerequisites
❖	Intensity:	20 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
AGRICULTURAL COMMODITIES

PRODUCTS

This crash courses concerns the basics of soft commodities, including agricultural products and tropical products. It covers the fundamentals of grains, beans, livestock, poultry, eggs and butter. Attention is also given to the pricing of these products.

This course covers the following video lessons:

1. Introduction
2. Supply chain
3. Price driving factors
4. Grains
5. Beans
6. Tropical products
7. Dairy, livestock & meat
8. Soybeans – Crush margin
9. Bio-energy
10. Food-feed-fuel

A. Examination
B. Certification

❖	Level:	Basic	No prerequisites
❖	Intensity:	20 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
LNG

PRODUCTS

This crash courses concerns liquefied natural gas, its supply chain, the basics of pricing and risk management.

This course covers the following video lessons:

1. Introduction
2. Train
3. Quality
4. Storage
5. Transport
6. Safety
7. Contracting
8. Incoterms
9. Pricing
10. Trading strategies
11. Risk management

A. Examination
B. Certification

❖	Level:	Basic	No prerequisites
❖	Intensity:	20 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
FREIGHT – *CARGOS, VESSELS, ROUTES & OPERATIONS* FREIGHT

This course covers the shipping of vessels across the international waterways. It is explained how different types of cargos are classified, what types of vessels are used for shipment and what routes are most common. Furthermore, ship operations can be mastered, as well as the chartering of vessels. In addition, attention is given to chartering and how this can be arranged for. In other words, this course provides the fundamentals of freight.

This course covers the following video lessons:

1. Supply chain
2. Means of transport
3. Freight defined
4. Construct or contract
5. Shipment operations – Bill of lading
6. Shipment operations – Loading & unloading
7. Shipment operations – Lay time versus layday
8. Shipment operations – NOR, demurrage & despatch
9. Routes
10. Well-known land- & seamarks
11. Cargo – Types of cargo
12. Cargo – Types of cargo – Container
13. Cargo – Types of cargo – Dry bulk
14. Cargo – Types of cargo – Wet bulk
15. Types of vessels – Dry bulk vessels
16. Types of vessels – Wet cargo vessels
17. Types of vessels – Barges
18. Shipping codes – Capesize
19. Shipping codes – Panamax
20. Chartering – Chartering & charter types
21. Chartering – Charter types – Trip charter
22. Chartering – Charter types – Time charter
23. Chartering – Charter types – Bareboat charter
24. Chartering – Charter types – Demise charter
25. Chartering – Insurance
26. International Maritime Organization - IMO
27. International Maritime Organization - IMO codes
28. Freight trading – Shipowner, charterer & broker
29. Freight trading – Freight contracts

A. Examination
B. Certification

❖	Level:	Basic	No prerequisites
❖	Intensity:	xx minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
FREIGHT – *INCOTERMS*

FREIGHT

This course explains the international commercial terms (in brief: 'Incoterms'), which are a series of pre-defined commercial terms published by the International Chamber of Commerce relating to international commercial law. Incoterms are also known as 'terms of delivery', because they regulate the rights and duties of buying and selling parties.

This course covers the following video lessons:

1. Introduction
2. Contract of carriage
3. Delivery, risk & liability
4. Contract of sale & master agreement
5. Periodic updates
6. Aspects of relevance
7. Variety of incoterms
8. Ex works – *EXW*
9. Free carrier – *FCA*
10. Carriage paid to – *CPT*
11. Carriage and insurance paid – *CIP*
12. Delivered at place unloaded – *DPU*
13. Delivered at place unloaded – *DAP*
14. Delivered duty paid – *DDP*
15. Free alongside ship – *FAS*
16. Free on board – *FOB*
17. Cost and freight – *CFR*
18. Cost, insurance & freight – *CIF*

A. Examination
B. Certification

❖	Level:	Basic	No prerequisites
❖	Intensity:	20 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
FREIGHT – *FREIGHT RATES & INDICES*

FREIGHT

This course explains the pricing of commodity transport per vessel. The price driving factors are set out to explain rate levels and fluctuations. In this course it is also explained what freight indices can be used for and how these serve as underlying value for the settlement of freight forwards, futures and options.

This course covers the following video lessons:

1. Freight rates – Level & volatility
2. Freight rates – Internal factors
3. Freight rates – External factors
4. Freight rates – Relationships
5. Freight rates – Volatility
6. The Baltic Exchange
7. Worldscale
8. Freight indices – Introduction
9. Freight indices – Purpose of an index
10. Freight indices – Baltic indexes
11. Freight indices – Baltic Dry Index (BDI)
12. Freight indices – Freight derivatives
13. Freight indices – Components – Baltic Dry index (BDI)
14. Freight indices – Components – Baltic Capesize Index (BCI)

A. Examination
B. Certification

❖ Level:	Intermediate	Prerequisites: the basics of freight
❖ Intensity:	35 minutes	Including examination
❖ Language:	Voice & text	English
❖ Including:	Examination	Certification upon passing

COURSE:

FREIGHT – *FFAs & FREIGHT DERIVATIVES*

FREIGHT

This course explains what a forward freight agreements (or FFAs) concern. The course includes videos about the application of FFAs and what standard legal frameworks are used. It is also set out what freight futures and options concern and how they can be applied by markets participant to hedge their exposures or for investment purposes.

This course covers the following video lessons:

1. Forward freight agreement – Introduction to FFAs
2. Forward freight agreement – Price-fixation
3. Forward freight agreement – Price-fixation – Settlement (example)
4. Forward freight agreement – Multi-period tool
5. Forward freight agreement – FFABA & master agreements
6. Freight futures – Introduction
7. Freight futures – Tools for hedging & investing
8. Freight options – Introduction
9. Freight options – European style
10. Freight options – Asian style
11. Freight options – Tools for hedging
12. Freight options – Valuation of Asian style options

A. Examination
B. Certification

❖	Level:	Advanced	Prerequisites: the basics of freight and freight rates & indices
❖	Intensity:	xx minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
WEATHER RISK

CLIMATE & SUSTAINABILITY

This course covers weather risk. It sets out what weather elements companies can be exposed to. Attention is given to the characteristics of these weather elements and the circumstances they can bring along, as well as their impact on the financial performance of an organisation. Weather data are covered as well. By means of examples it is explained what makes data relevant and what these are used for.

This course covers the following video lessons:

1. Weather risk & weather risk management
2. Climate versus weather
3. Precipitation-related exposures
4. Precipitation-related exposures – *Hydro power plants*
5. Storms, typhoons & hurricanes
6. Weather data analysis
7. Indicators – Weather indices
8. Indicators – Weather index – Degree day
9. Indicators – Weather index – CHI
10. Risk mitigation – Introduction
11. Risk mitigation – Structuring – Weather-indexed pricing
12. Risk mitigation – Structuring – PPA
13. Risk mitigation – Structuring – Structured deal
14. Risk mitigation – Structuring – Catastrophe-related products
15. Risk mitigation – Structuring – Cat bonds
16. Risk mitigation – Structuring – Cat bonds – Triggers
17. Weather risk control

A. Examination
B. Certification

❖	Level:	Basic	No prerequisites
❖	Intensity:	xx minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
WEATHER DATA

CLIMATE & SUSTAINABILITY

This course covers weather risk. It sets out what weather elements companies can be exposed to. Attention is given to the characteristics of these weather elements and the circumstances they can bring along, as well as their impact on the financial performance of an organisation. Weather data are covered as well. By means of examples it is explained what makes data relevant and what these are used for.

This course covers the following video lessons:

1. Introduction
2. Data for valuation & risk management
3. Data analysis
4. Seasonality
5. Temperature data – Introduction
6. Temperature data – Frost
7. Wind data – Introduction
8. Wind data – Factors influencing wind power flow
9. Wind data – Characteristics of wind
10. Wind data – Mass continuity
11. Wind data – Wind speed – Altitude & diurnal cycle
12. Wind data – What factors does wind depend on?
13. Wind data – Average wind speed
14. Wind data – Distribution of wind speed

A. Examination
B. Certification

❖	Level:	Basic	No prerequisites
❖	Intensity:	xx minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
WEATHER DERIVATIVES

CLIMATE & SUSTAINABILITY

This course explains what weather derivatives are. It provides an overview of the fundamentals of these instruments and how they can be applied by companies to manage their weather exposures. Furthermore, quite some essentials are set out that make one understand how to control temperature, wind or precipitation risk. In addition, the settlement of these tools is given attention to and the reference indices that are used for this purpose.

This course covers the following video lessons:

1. Hedging tools
2. History
3. Insurance versus hedging
4. Cash settlement
5. Market participants
6. Temperature derivatives
7. Temperature derivatives – HDD
8. Temperature derivatives – CDD
9. Temperature derivatives – CAT
10. Temperature derivatives – Strip
11. Temperature derivatives – Application
12. Temperature derivatives – Frost contracts
13. Precipitation derivatives – Snow contracts
14. Precipitation derivatives – Rain contracts
15. Wind derivatives
16. Wind derivatives – Futures
17. Wind derivatives – Options
18. Wind derivatives – Swaps
19. Wind derivatives - Hurricane instruments
20. Wind derivatives - Hurricane instr. – CHI
21. Wind derivatives - Hurricane instr. – Landfall
22. Weather markets - Market liquidity
23. Basis risk
24. Example: Applying HDD derivatives

A. Examination
B. Certification

❖ Level:	Intermediate	Prerequisites: fundamentals of weather risk & weather data
❖ Intensity:	50 minutes	Including examination
❖ Language:	Voice & text	English
❖ Including:	Examination	Certification upon passing

COURSE:
PRICING OF WEATHER DERIVATIVES

CLIMATE & SUSTAINABILITY

This course explains what weather derivatives are. It provides an overview of the fundamentals of these instruments and how they can be applied by companies to manage their weather exposures. Furthermore, quite some essentials are set out that make one understand how to control temperature, wind or precipitation risk. In addition, the settlement of these tools is given attention to and the reference indices that are used for this purpose.

This course covers the following video lessons:

1. Actuarial method
2. Business pricing model
3. Future data required
4. Modelling
5. Modelling – Calibration
6. Modelling – Selecting the optimal model
7. Monte Carlo simulations
8. Numerical methods
9. Analytical solutions
10. Comparison between methods
11. Wind derivatives – Underlying value
12. Wind derivatives – Types of derivatives
13. Wind derivatives – Basics of turbines
14. Wind derivatives – Features of turbines

A. Examination
B. Certification

❖ Level:	Intermediate	Prerequisites: fundamentals of weather risk & weather data
❖ Intensity:	xx minutes	Including examination
❖ Language:	Voice & text	English
❖ Including:	Examination	Certification upon passing

COURSE:
CLIMATE CHANGE & ENERGY POLICY

CLIMATE & SUSTAINABILITY

This course covers the energy policies that apply worldwide. First, the greenhouse effect is explained and what greenhouse gases are relevant for this process. Thereafter, attention is given to the Kyoto Protocol and its consequences. It is also set out how the policies are developed over time. In this respect, the function of the conferences of the parties (COP) is explained and the role of UNFCCC. Furthermore, the course allows to master ways to lower emission of greenhouse gases and what tools have been developed for this purpose.

This course covers the following video lessons:

1. Sustainability
2. Climate change & global warming
3. Climate versus weather
4. Risk related to climate change & extreme weather
5. Greenhouse effect
6. Greenhouse gases
7. World Economic Forum
8. IPCC
9. UNFCCC
10. Conference of the parties (COP)
11. Kyoto Protocol – Introduction
12. Kyoto Protocol – Annex I & II Parties
13. Sink activities – LULUCF
14. Carbon sequestration
15. Carbon capture & storage
16. Targets
17. The Paris Agreement
18. The Paris Agreement versus the Kyoto Protocol

A. Examination
B. Certification

❖ Level:	Basic	No prerequisites
❖ Intensity:	40 minutes	Including examination
❖ Language:	Voice & text	English
❖ Including:	Examination	Certification upon passing

COURSE:
CARBON MARKETS & RIGHTS TRADING CLIMATE & SUSTAINABILITY

This course covers the carbon markets that are around globally. It is set out how these markets can be organised and what mechanisms are applied. Attention is given to the purchase and sale of emission rights and the related cost or income to emitters (including owners of physical capacity / consumers of fossil fuels).

This course covers the following video lessons:

1. Voluntary & mandatory initiatives
2. Flexibility mechanisms – Three market-based mechanisms
3. Flexibility mechanisms – Fundamentals
4. Flexibility mechanisms – Clean Development Mechanism (CDM)
5. Flexibility mechanisms – CDM – Certified Emission Right (CER)
6. Flexibility mechanisms – Joint Implementation (JI)
7. Flexibility mechanisms – JI – Emission Reduction Unit (ERU)
8. Flexibility mechanisms – International Emissions Trading (IET)
9. Flexibility mechanisms – Summary & overview
10. Emissions trading – Carbon dioxide emission rights
11. Emissions trading – Fraud
12. Emissions trading – Where to transact?
13. Emissions trading – Transaction logs
14. Emissions trading – Cap & trade system – Sulphur dioxide (US)
15. Emissions trading – Cap & trade system – The basic idea
16. Emissions trading – Cap & trade system – Price incentive – Practical example: Transfer of rights
17. Emissions trading – Cap & trade system – Price incentive – Manufactoring company
18. Emissions trading – Cap & trade system – Price incentive – Investing in renewables
19. Emissions trading – Cap & trade system – Price incentive – Carbon leakage
20. Emissions trading – Calculation – Carbon-intensity & cost of plant (Gas)
21. Emissions trading – Calculation – Carbon-intensity & cost of plant (Coal)
22. Emissions trading – Emission rights for greenhouse gases other than carbon dioxide

A. Examination
B. Certification

❖ Level:	Intermediate	Prerequisites: knowledge of climate change & energy policy
❖ Intensity:	xx minutes	Including examination
❖ Language:	Voice & text	English
❖ Including:	Examination	Certification upon passing

COURSE:
CARBON TRADING – *EU-ETS*

CLIMATE & SUSTAINABILITY

This course explains the solution applied in the European Union for an emission trading system to trade (carbon dioxide) emission rights. In this course the characteristics of the EU system are set out. It is also covered what aspects are of relevance and how factors drive the price. Besides, it is described what measures have been taken to optimize the functioning of the system.

This course covers the following video lessons:

1. European Union – Emissions Trading System (EU ETS)
2. European Union Allowances (EUAs)
3. Registry & trading
4. EU ETS Development
5. Phases
6. Emission Allowance Allocation
7. Windfall profits
8. Compliance & sanctioning
9. Exceptional positions
10. Revised ETS directive
11. Efforts sharing decision & regulation
12. CSS directive
13. Installations & operators
14. Linking directive
15. Banking & borrowing
16. Opt-in & opt-out
17. Aviation
18. Phase 3
19. Phase 4
20. Allocating allowances & auctioning
21. New entrants & free allocation
22. Backloading & Market Stability Reserve
23. Where to transact?
24. Pricing

A. Examination
B. Certification

❖	Level:	Advanced	Familiar climate change, energy policy & carbon markets
❖	Intensity:	60 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
ATTRIBUTE CERTIFICATES

CLIMATE & SUSTAINABILITY

This course covers attribute (energy) certificates. In order to track and trace commodities from their source, their origination can be certified. Certificates can serve as proof how a commodity has been produced. This applies, amongst others, to electricity. Has it been produced by, for example, a coal-fired power plant, a nuke, a wind turbine, a solar panel or a hydro facility? In this course various regimes and types of certificates are set out so that insight is gained what applies in which regions across the globe.

This course covers the following video lessons:

1. Energy attribute certificate (EAC)
2. Greenhouse Gas Protocol
3. Guarantee of origin (GoO)
4. Renewable energy certificate (REC)
5. International renewable energy certificate (I-REC)
6. Tradable instrument for global renewables (TIGR)
7. Trading EACs
8. Gas certificates
9. Hydrogen certificates

A. Examination
B. Certification

❖ Level:	Basic	No prerequisites
❖ Intensity:	25 minutes	Including examination
❖ Language:	Voice & text	English
❖ Including:	Examination	Certification upon passing

COURSE:
BIO-ENERGY

CLIMATE & SUSTAINABILITY

Biofuels include bio-liquids and biomass. Bio-liquids consist of bio-ethanol and biodiesel, whereas biomass includes wood pellets. Biofuels can be used to replace fossil fuels.

This course covers the following video lessons:

1. Introduction
2. Solid biomass – Wood pellets
3. Solid biomass – Chips
4. Solid biomass – Pricing
5. Liquid biofuels – Introduction
6. Liquid biofuels – Bio-ethanol
7. Liquid biofuels – Biodiesel
8. Liquid biofuels – Pricing
9. Biogas
10. Ethics

A. Examination
B. Certification

❖	Level:	Basic	No prerequisites
❖	Intensity:	25 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
HEAT

CLIMATE & SUSTAINABILITY

This crash courses concerns the supply chain of heat. Therefore, it covers heat generation as well as consumption, storage and transport. Various techniques are covered, but in a nutshell. This course covers the basics in a generic manner.

This course covers the following video lessons:

1. Introduction
2. Thermal heat
3. Heating
4. By-product
5. Combined heat & power
6. Heat storage
7. Heat transfer
8. Industrial consumption
9. Heat supply contracts
10. Must run
11. Pricing & valuation
12. The heat market

A. Examination
B. Certification

❖ Level:	Basic	No prerequisites
❖ Intensity:	30 minutes	Including examination
❖ Language:	Voice & text	English
❖ Including:	Examination	Certification upon passing

COURSE:
HYDROGEN

CLIMATE & SUSTAINABILITY

This crash courses concerns the value chain of hydrogen. Therefore, it covers production, consumption, storage and transport. Various techniques are covered, but in a nutshell. This course covers the basics in a generic manner.

This course covers the following video lessons:

1. Basics of hydrogen
2. Hydrogen production
3. Hydrogen consumption
4. Brown, grey, blue & green hydrogen
5. Hydrogen transport
6. Hydrogen storage
7. Wholesale market development

A. Examination
B. Certification

❖	Level:	Basic	No prerequisites
❖	Intensity:	20 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
DERIVATIVES – *INTRODUCTION*

DERIVATIVES

This course concerns a general introduction to derivatives contracts, including futures contracts, swap agreements and option contracts. The lessons give insight in what these financial instruments concern and how they can be applied.

This course covers the following video lessons:

1. Introduction
2. Term contracts
3. Swaps
4. Options
5. Combinations
6. Settlement
7. Contract-for-difference
8. Tool to speculate
9. Tools to hedge
10. Derivatives markets

A. Examination
B. Certification

❖	Level:	Basic	No prerequisites
❖	Intensity:	25 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
FUTURES – *POSITION MANAGEMENT* DERIVATIVES

This course provides insight in the opening of a futures position and closing it. It also sets out the terminology long and short. Furthermore, the lessons allow to master the concept of rolling a futures position, by describing the process and touching upon related aspects.

This course covers the following video lessons:

1. Introduction
2. Opening transaction – Long & short position
3. Closing transaction – Eliminate position
4. Long versus short
5. Rolling a futures position – Introduction
6. Rolling a futures position – Investor or speculator
7. Rolling a futures position – Hedger
8. Rolling a futures position – The concept
9. Rolling a futures position – Practical aspects
10. Rolling a futures position – Roll yield
11. Rolling a futures position – Forward curve structure
12. Rolling a futures position – Rolling a short position
13. Rolling a futures position – Rolling a long position
14. Notional value
15. Open interest

A. Examination
B. Certification

❖ Level:	Intermediate	Prerequisites: basics of derivatives
❖ Intensity:	40 minutes	Including examination
❖ Language:	Voice & text	English
❖ Including:	Examination	Certification upon passing

COURSE:

OPTIONS – *INTRODUCTION*

DERIVATIVES

This course provides all fundamentals of options, including the working of these instruments, both from the position of the holder and writer, option valuation, factors of influence and settlement of contracts, as well as the financial performance of positions.

This course covers the following video lessons:

1. Single-sided right
2. Tool to speculate or hedge
3. Position management
4. A premium to compensate risk
5. Options trading – Brokers & exchanges
6. Open interest
7. Contract specifications – Introduction
8. Contract specifications – Strike
9. Contract specifications – Maturity
10. Contract specifications – Underlying value
11. Contract specifications – Contract size
12. Contract specifications – Settlement type
13. Contract specifications – Style
14. Contract specifications – Currency
15. Contract specifications – Additional notes
16. Position management – Right vs obligation
17. Position management – Opening & closing
18. Position management – Settlement
19. Position management – Netting
20. Intrinsic value – Introduction
21. Intrinsic value – Pay-off
22. Intrinsic value – Option positions
23. Premium – Introduction
24. Premium - Pricing or options
25. Premium – Price driving factors – Introduction
26. Premium – Price driving factors – Volatility
27. Premium – Price driving factors – Price u.v.
28. Premium – Price driving factors – Cost of carry
29. Premium – Price driving factors – Strike price
30. Premium – Price driving factors – Maturity
31. Premium – Price driving factors – Option style
32. Valuation – Intrinsic value & time value
33. Moneyness – Introduction
34. Moneyness – At-the-money
35. Moneyness – In-the-money
36. Moneyness – Out-of-the-money
37. Moneyness – Application
38. Premium erosion
39. Positions – Investing & speculation
40. Positions – Leverage
41. Positions – Financial performance – Long call
42. Positions – Financial performance – Short call
43. Positions – Financial performance – Long put
44. Positions – Financial performance – Short put
45. Positions – Financial performance – Zero-sum

A. Examination
B. Certification

❖	Level:	Basic	No prerequisites
❖	Intensity:	75 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:

OPTIONS – *EXERCISE, ASSIGNMENT & SETTLEMENT*

DERIVATIVES

This course provides all essentials concerning the exercising of option and the related assignment and settlement. It includes the processes of physical delivery and cash settlement. Next, the possibility of early exercise in case of American style options is covered and it is set out when this would be preferred.

This course covers the following video lessons:

1. Exercise & assignment
2. Settlement
3. Option on cash or spot product
4. Option on futures contract
5. Commodity options
6. Power & gas options
7. Cash settled options
8. Early exercise – Introduction
9. Early exercise – Call option
10. Early exercise – Put option
11. Early exercise – Put-call parity
12. Early exercise – Option style

A. Examination
B. Certification

❖	Level:	Intermediate	Prerequisites: fundamentals of options
❖	Intensity:	20 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:

OPTIONS – *HEDGING EXPOSURES* DERIVATIVES

Options can be used for hedging purposes, whereas option positions can be hedged with forwards or futures. This course provides the essentials of hedging strategies with options. It is covered how commodity consumers can hedge their exposures with options, and the same applies to commodity producers. Next, it is set out how options can be hedged with term contracts. In particular the concept of Delta-hedging is explained.

This course covers the following video lessons:

1. Consumer hedge – Introduction
2. Consumer hedge – Capping at different levels
3. Consumer hedge – Selecting the strike price
4. Producer hedge – Introduction
5. Producer hedge – Flooring at different levels
6. Producer hedge – Selecting the strike price
7. Selection of strike & maturity
8. Hedging a linear exposure with a non-linear instrument
9. Hedging a non-linear exposure with a linear instrument
10. Hedging long call with short future
11. Hedging short call with long future
12. Hedging long put with long future
13. Hedging short put with short future
14. Delta-hedging – Introduction
15. Delta-hedging – Dynamic hedging
16. Delta-hedging – Delta-neutrality
17. Delta-hedging – Making or losing money
18. Delta-hedging – Relevant Greeks
19. Delta-hedging – Premium long or short

A. Examination
B. Certification

❖ Level:	Intermediate	Prerequisites: fundamentals of options
❖ Intensity:	50 minutes	Including examination
❖ Language:	Voice & text	English
❖ Including:	Examination	Certification upon passing

COURSE:

OPTIONS – *PUT-CALL PARITY & SYNTHETICS* DERIVATIVES

This course provides the essentials of the put-call parity regarding options. it is explained what it concerns and how it can be applied, for instance, to price or valuate options. The course also sets out how synthetic outright positions or derivatives positions can be created with options. The combination of the put-call parity and the theory concerning synthetics allows for arbitrage strategies. This knowledge is shared during the final part of the course.

This course covers the following video lessons:

1. The arbitrage model
2. Arbitrage
3. Time value
4. Stock options
5. Commodity options
6. Early exercise
7. Synthetic long futures position
8. Synthetic short futures position
9. Synthetic option positions – Introduction
10. Synthetic long call option position
11. Synthetic long put option position
12. Synthetic short call option position
13. Synthetic short put option position
14. Arbitrage – Profit from mispricing
15. Arbitrage – Conversion
16. Arbitrage – Reversal
17. Arbitrage – Realising the profit
18. Arbitrage – Box

A. Examination
B. Certification

❖	Level:	Advanced	Prerequisites: Fundamentals & essentials of options
❖	Intensity:	30 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:

OPTIONS – *GREEK VARIABLES*

DERIVATIVES

This course provides learners with a comprehensive overview of the risk parameters related to option positions. It is explained how the Greek variables can be used to perform risk management. Throughout the course one can master advanced knowledge of the Greeks and how sensitivity analysis can be effectuated, as well as how this allows to manage positions. In addition, the relationships between the risk parameters are clarified.

This course covers the following video lessons:

1. Risk parameters
2. Dynamic concepts
3. Delta – Introduction
4. Delta – Call Delta versus put Delta
5. Delta – Sensitivity
6. Delta – Long versus short position
7. Delta – Portfolio management
8. Delta – Relevant notes
9. Delta – Hedge ratio
10. Delta – Non-linear exposure vs. linear hedge
11. Delta – Dynamics of Delta
12. Theta – Introduction
13. Theta – Portfolio management
14. Vega – Introduction
15. Vega – Portfolio management
16. Rho
17. Second order Greeks – Introduction
18. Vanna
19. Vomma
20. Charm
21. Veta
22. Vera
23. Gamma – Introduction
24. Gamma – Characteristics
25. Gamma – Rules of thumb
26. Third order Greeks
27. Application – Coherence – Delta
28. Application – Coherence – Gamma, Vega & Theta
29. Application – Coherence – The process of the underlying
30. Application – Coherence – Greeks of a linear product
31. Risks beyond Greeks – Liquidity risk
32. Risks beyond Greeks – PIN risk
33. Risks beyond Greeks – Fugit

A. Examination
B. Certification

❖	Level:	Expert	Prerequisites: fundamentals & essentials of options
❖	Intensity:	75 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:

OPTIONS – *EXOTICS*

DERIVATIVES

This course provides all fundamentals of non-vanilla (or exotic) options, including their specific characteristics and what they could be used for, as well as their pricing or valuation. This knowledge is also crucial for those who want to master modelling of flexibility in commodity or energy portfolios of physical players.

This course covers the following video lessons:

1. Introduction to exotic options
2. Features of exotic options
3. Exercise style – Asian style
4. Exercise style – Bermudan style
5. Exercise style – Canary style
6. Exercise style – Capped style
7. Exercise style – Compound option
8. Exercise style – Shout option
9. Exercise style – Swing option
10. Standard style – Different payoff – Introduction
11. Standard style – Different payoff – Cross option
12. Standard style – Different payoff – Quanto option
13. Standard style – Different payoff – Exchange option
14. Standard style – Different payoff – Basket option
15. Standard style – Different payoff – Rainbow option
16. Standard style – Different payoff – Low exercise price option (LEPO)
17. Path-dependent options – Introduction
18. Path-dependent options – Lookback option
19. Path-dependent options – Binary option
20. Path-dependent options – Asian option
21. Path-dependent options – Barrier option
22. Path-dependent options – Specific barrier options

A. Examination
B. Certification

❖	Level:	Expert	Prerequisites: fundamentals & essentials of options
❖	Intensity:	40 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
OPTIONS – *VALUATION MODELS* DERIVATIVES

This course provides learners a perfect overview of the pricing or valuation of options or option positions. Different models are covered and their features are compared to the characteristics of other models. Meanwhile attention is given to price volatility as it is crucially important for the option premium.

This course covers the following video lessons:

1. Introduction
2. Volatility – Skew
3. Volatility – Smile
4. Volatility – Kurtosis
5. Binomial model – Introduction
6. Binomial tree – Normal distribution
7. Binomial tree – Skewed distribution
8. Black & Scholes model – Introduction
9. Black & Scholes model – Formulas
10. Black & Scholes model – Limitations
11. Black-76 model – Introduction
12. Black-76 model – Formulas
13. Monte Carlo simulations
14. Application – Applicability
15. Application – Comparison – Binomial model vs. Black & Scholes
16. Application – Models for commodity options

A. Examination
B. Certification

❖	Level:	Advanced	Prerequisites: fundamentals & essentials of options
❖	Intensity:	45 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
OPTIONS – *REAL OPTIONS*

DERIVATIVES

This course explains what real options concern. It is set out that the right to undertake a certain business initiative can be modelled in terms of financial options. In particular, this can be applied to physical assets in the portfolio of commodity or energy players, or their supply contracts. This way, the risks can be identified better, alike hedging them. Besides, the valuation of these assets also becomes easier.

This course covers the following video lessons:

1. Introduction
2. Project size – Option to expand
3. Project size – Option to contract
4. Project size – Option to expand or contract
5. Project life & timing – Growth options
6. Project life & timing – Option to initiate
7. Project life & timing – Option to abandon
8. Project life & timing – Sequencing option
9. Project operations – Output mix option
10. Project operations – Input mix option
11. Project operations – Operating scale options
12. The real option approach – DCF & NPV
13. The real option approach – Financial options versus real options

A. Examination
B. Certification

❖ Level:	Expert	Prerequisites: fundamentals & essentials of options
❖ Intensity:	30 minutes	Including examination
❖ Language:	Voice & text	English
❖ Including:	Examination	Certification upon passing

COURSE:
SWAPS – *INTRODUCTION TO SWAPS* DERIVATIVES

This course explains what interest rate swaps are. It provides an overview of the fundamentals of these instruments and how they can be applied by companies. Furthermore, quite some essentials are set out that are important to know before using these tools to perform treasury management. This includes the valuation of the instruments, as well as their settlement.

UNDER DEVELOPMENT

This course covers the following video lessons:

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

A. Examination
B. Certification

❖ Level:	Basic	No prerequisites
❖ Intensity:	xx minutes	Including examination
❖ Language:	Voice & text	English
❖ Including:	Examination	Certification upon passing

COURSE:

SWAPS – *INTEREST RATE SWAPS* DERIVATIVES

This course explains what interest rate swaps are. It provides an overview of the fundamentals of these instruments and how they can be applied by companies. Furthermore, quite some essentials are set out that are important to know before using these tools to perform treasury management. This includes the valuation of the instruments, as well as their settlement.

This course covers the following video lessons:

1. Forward rate agreement – Introduction
2. Forward rate agreement vs. interest rate swap
3. The first swap ever
4. The two legs
5. Exchange of cashflows
6. Application
7. Specifications
8. Fixed rate loan vs. floating rate loan
9. Hedge interest rate exposures or alter fixed payments to floating obligations
10. Varieties
11. Fixed-for-Floating interest rate swap – Same currency
12. Fixed-for-Floating interest rate swap – Different currencies
13. Floating-for-Floating interest rate swap – Same currency
14. Floating-for-Floating interest rate swap – Different currencies
15. Fixed-for-Fixed interest rate swap – Different currencies
16. Overnight indexed swaps – Fundamentals
17. Overnight indexed swaps – Valuation
18. Application of interest rate swaps
19. Valuation of interest rate swaps – Introduction
20. Valuation of interest rate swaps – Valuation based on bond prices
21. Valuation of interest rate swaps – Valuation based on FRA pricing
22. Valuation of interest rate swaps – Discounting future cashflows to todays value
23. Valuation of interest rate swaps – Yield curve
24. Valuation of interest rate swaps – Dirty & clean value
25. The trading of interest rate swaps – The role of broker-dealers

A. Examination
B. Certification

❖	Level:	Basic	No prerequisites
❖	Intensity:	xx minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:

SWAPS – *FX FORWARDS & FX SWAPS* DERIVATIVES

This course explains what FX forwards are, as well as what FX swaps concern. It provides an overview of the fundamentals of these instruments and how they can be applied by companies. Furthermore, quite some essentials are set out that are important to know before using these tools to perform treasury management. This includes the valuation of the instruments, as well as their settlement.

This course covers the following video lessons:

1. FX forwards – Introduction to FX forwards
2. FX forwards – Time option forward contract
3. FX forwards – Closing an FX forward
4. FX forwards – Valuation of an FX forward
5. FX swaps – Introduction to FX swaps
6. FX swaps – Comparative advantage
7. FX swaps – Par, premium & discount
8. FX swaps – Spot-forward FX swap
9. FX swaps – Forward-forward FX swap
10. FX swaps – Interest rate parity
11. FX swaps – Short leg & long leg
12. FX swaps – Pricing & valuation of FX swaps – Swap points
13. FX swaps – Pricing & valuation of FX swaps – Forward-Forward FX swaps – Forward points
14. FX swaps – Pricing & valuation of FX swaps – Valuation in terms of bond positions
15. FX swaps – Today-Tomorrow FX swaps
16. FX swaps – Overnight FX swaps & Tomorrow-Tomorrow FX swaps
17. FX swaps – Hedging FX exposures with FX swaps – Tool to optimise cash management
18. FX swaps – Hedging FX exposures with FX swaps – Forward points – Calculations
19. FX swaps – Hedging FX exposures with FX swaps – Hedge with an FX spot deal & an FX swap
20. FX swaps – Cash management with an overnight FX swap
21. FX swaps – Rolling an FX forward with an FX swap – An FX swap to change the value date
22. FX swaps – Rolling an FX forward with an FX swap – Opening & closing positions
23. FX swaps – Rolling an FX forward with an FX swap – Market liquidity
24. FX swaps – Rolling an FX forward with an FX swap – Valuation
25. FX swaps – Cross-currency interest rate swap – Introduction
26. FX swaps – Cross-currency interest rate swap – Valuation
27. FX swaps – Cross-currency interest rate swap – Application

A. Examination
B. Certification

❖ Level:	Basic	No prerequisites
❖ Intensity:	xx minutes	Including examination
❖ Language:	Voice & text	English
❖ Including:	Examination	Certification upon passing

COURSE:
SWAPS – *COMMODITY SWAPS* DERIVATIVES

This course explains what commodity swaps are, which types are used by market participants and for what purpose. It covers both physical swaps and financial swaps. It is also set out for how these instruments can be applied to solve physical challenges and to meet financial desires.

This course covers the following video lessons:

1. Contract to exchange
2. Two legs
3. Physical swaps – Location swap – *Virtual transport*
4. Physical swaps – Cross-commodity swap
5. Physical swaps – Carbon swap – *EUAs versus CERs*
6. Physical swaps – Cargo swap
7. Financial swaps – Cash settlement
8. Financial swaps – Fixed-for-floating
9. Financial swaps – Participation swap
10. Financial swaps – Double–up swap
11. Financial swaps – Swap on average
12. Financial swaps – Capped or floored swap
13. Financial swaps – Range-out swap
14. Financial swaps – Swap futures
15. Financial swaps – Single payment swap

A. Examination
B. Certification

❖ Level:	Basic	No prerequisites
❖ Intensity:	xx minutes	Including examination
❖ Language:	Voice & text	English
❖ Including:	Examination	Certification upon passing

COURSE:
SWAPS – *SWAPTIONS* DERIVATIVES

This course covers the fundamentals and quite some essentials of swaptions. Hence, the course covers different types plus contract specifications and relevant aspects, as well as the valuation of these instruments.

This course includes the following video lessons:

1. Swaptions – Introduction
2. Swaptions – Payers & receivers swaption
3. Swaptions – Contract specifications
4. Swaptions – Extendables
5. Swaptions – Swaption styles – Introduction
6. Swaptions – Swaption styles – European style swaption
7. Swaptions – Swaption styles – American style swaption
8. Swaptions – Swaption styles – Asian style swaption
9. Swaptions – Swaption trading – Participants
10. Swaptions – Swaption trading – Collateralisation & margining
11. Swaptions – Swaption trading – Settlement
12. Swaptions – Energy swaption – Oil-indexed gas supply contract
13. Swaptions – Valuation of swaptions – Introduction
14. Swaptions – Valuation of swaptions – Valuation models

A. Examination
B. Certification

❖	Level:	Basic	No prerequisites
❖	Intensity:	xx minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:

SWAPS – *CREDIT DEFAULT SWAPS* DERIVATIVES

This course covers the fundamentals of credit default swaps. Hence, the course covers different types plus contract specifications and relevant aspects, as well as the valuation of these instruments.

This course includes the following video lessons:

1. Credit default swaps – Introduction
2. Credit default swaps – Trigger
3. Credit default swaps – Credit event
4. Credit default swaps – Settlement
5. Credit default swaps – Pricing of CDS & payment
6. Credit default swaps – Default & auction
7. Credit default swaps – Counterparty risk
8. Credit default swaps – Regulation
9. Credit default swaps – Since the Credit Crisis
10. Credit default swaps – Pricing & valuation of CDS – Introduction
11. Credit default swaps – Pricing & valuation of CDS – Probabilty model
12. Credit default swaps – Pricing & valuation of CDS – Illustration
13. Credit default swaps – Credit ratings
14. Credit default swaps – Credit rating agency – Introduction
15. Credit default swaps – Credit rating agency – Business model

A. Examination
B. Certification

❖	Level:	Basic	No prerequisites
❖	Intensity:	xx minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
COMMODITY PRICING

PRICING

This course contains animation-style videos with narration which set out the pricing of commodities. It is explained how pricing takes place and what factors influence commodity prices. In specific, attention is given to fundamental price driving elements, such as the availability and utilisation of physical capacity, FX rates, weather and seasonality.

This course covers the following video lessons:

1. A price
2. Scarcity
3. Rational economics versus behavioural economics
4. Economics – Law of supply and demand
5. Economics – Demand and utility
6. Economics – Supply and cost
7. Economics – Equilibrium
8. Economics – Marginal utility versus marginal cost
9. Economics – Fixed versus floating costs
10. Price driving factors – Introduction
11. Price driving factors – Demography & economy
12. Price driving factors – Reserves & production
13. Price driving factors – Technology & economic viability
14. Price driving factors – Consumption & processing
15. Price driving factors – Storage & storage capacity
16. Price driving factors – Transport & transport capacity
17. Price driving factors – Social factors & politics
18. Price driving factors – Quality
19. Price driving factors – FX rates
20. Price driving factors – Inflation
21. Price driving factors – Correlation & diversification
22. Price driving factors – Substitution
23. Price driving factors – Environmental issues
24. Price driving factors – Seasonality
25. Price driving factors – Weather
26. Price driving factors – Mean-reversion – Introduction
27. Price driving factors – Mean-reversion – Merit order
28. Price driving factors – Mean-reversion – Merit order – Electricity
29. Price driving factors – Mean-reversion – Merit order – Electricity – Complications

A. Examination
B. Certification

❖	Level:	Basic	No prerequisites
❖	Intensity:	55 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
MARKET ANALYSIS

PRICING

This course sets out different forms of market analysis and what these approaches concern. Attention is given to specific aspects of each type of analysis. In addition, examples are provided of what is considered in the analysis.

This course covers the following video lessons:

1. Introduction
2. Types of analysis – Fundamental analysis
3. Types of analysis – Technical analysis
4. Types of analysis – Quantitative analysis
5. Types of analysis – Psychological analysis
6. Combining analysis
7. Quantitative analysis - StatArb
8. Fundamental analysis – STEEPLED analysis
9. Fundamental analysis – Political factors
10. Fundamental analysis – Economic factors
11. Fundamental analysis – (Socio-)cultural factors
12. Fundamental analysis – Technological factors
13. Fundamental analysis – Legal factors
14. Fundamental analysis – Environmental factors
15. Fundamental analysis – Ethical factors
16. Fundamental analysis – Demographic factors

A. Examination
B. Certification

❖	Level:	Intermediate	Prerequisites: fundamentals of commodities & pricing
❖	Intensity:	30 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
COMMODITY INDICES & PRICE-INDEXATION

PRICING

This course contains animation-style videos with narration which set out both the topic 'commodity indices' and the concept of 'price-indexation'. It is explained what an index concerns, what the differences are between single-commodity indices and multi-commodity indices, as well as how they are calculated and how they can be applied. In addition, the roles of administrators and contributors is set out. Furthermore, attention is given to price-indexation. It is set out how parties make use of an index as reference price in case of supply contracts and derivatives.

This course covers the following video lessons:

1. Commodity indices – Introduction
2. Commodity indices – Multi-commodity indices
3. Commodity indices – Single commodity indices
4. Commodity indices – Price reporting agencies
5. Commodity indices – Pricing panel
6. Commodity indices – Application
7. Commodity indices – Regulation
8. Price-indexation – Introduction
9. Price-indexation – Maintaining benchmarks
10. Price-indexation – Cross-commodity

A. Examination
B. Certification

❖ Level:	Intermediate	Prerequisites: fundamentals of commodities & pricing
❖ Intensity:	30 minutes	Including examination
❖ Language:	Voice & text	English
❖ Including:	Examination	Certification upon passing

COURSE:
PRICE VOLATILITY

PRICING

This course is about the concept price volatility, the calculation of volatility numbers, the application of it and its interpretation. Including probability distribution curves and skewness.

This course covers the following video lessons:

1. Introduction
2. Quantification & interpretation
3. Types of volatility
4. Calculation
5. Probability distribution curves
6. Skewness
7. Application

A. Examination
B. Certification

❖	Level:	Basic	No prerequisites
❖	Intensity:	25 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
LIQUIDITY

PRICING

Liquidity is often applied terminology in the field of trading. Market participants require liquidity in order to perform their tasks. However, in the traded markets, there are two types of liquidity, namely market liquidity and funding liquidity. Both concepts are set out during this crash course and relevant aspects are covered.

This course covers the following video lessons:

1. Introduction
2. Funding liquidity – Introduction
3. Funding liquidity – Funding trading activities
4. Funding liquidity – Cost of capital
5. Market liquidity – Introduction
6. Market liquidity – Bid-ask spread
7. Market liquidity – Market depth
8. Market liquidity – Market volume & deal size
9. Market liquidity – Market participants
10. Market liquidity – Market resilience
11. Market liquidity – Price volatility
12. Market liquidity – Conversion to cash
13. Market liquidity – Order types
14. Market liquidity – Liquidity per product
15. Market liquidity – Churn rate
16. Market liquidity – Market making

A. Examination
B. Certification

❖	Level:	Basic	No prerequisites
❖	Intensity:	30 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
FORWARD CURVES

PRICING

This course is about the forward curve and explains what it is, what it indicates and how it is used by market participants. This course also sets out the concepts of contango and backwardation. Next, the cost of carry are included and the theory of the storage model is covered.

This course covers the following video lessons:

1. Price chart
2. Definition
3. Contango & backwardation
4. The storage model
5. Arbitrage
6. Convenience

A. Examination
B. Certification

❖	Level:	Basic	No prerequisites
❖	Intensity:	15 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
PRICE CORRELATION

PRICING

This course is about the concept price correlation, the calculation of the correlation coefficient, the application of it and its limitations. including regression, normality and linearity.

This course covers the following video lessons:

1. Introduction
2. Positive or negative
3. Correlation coefficient
4. Types of correlation
5. Application of correlation
6. Calculation of the correlation coefficient
7. Model risk

A. Examination
B. Certification

❖	Level:	Basic	No prerequisites
❖	Intensity:	25 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
PPAs

CONTRACTING

Covering power purchase agreements, including contract specifications, pricing and volume risk management.

This course covers the following video lessons:

1. Introduction
2. Lifecycle of a power generation project
3. Project finance
4. Bankability
5. Roles of actors
6. Overview of PPA obligations
7. Timing requirements
8. Tariff structures
9. Invoicing & payment
10. Risk allocation & mitigation
11. Commercial operational data
12. Development or construction risk
13. Operational phase risks
14. Change in law risk
15. Change in tax
16. Force majeure
17. Fuel supply & price risk
18. Insurance
19. Dispute resolution

A. Examination
B. Certification

❖	Level:	Basic	No prerequisites
❖	Intensity:	60 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
MASTER AGREEMENTS

CONTRACTING

This course covers the relevant aspects of legal framework agreements between two parties, which are of relevance for bilateral deal-making. Master agreements are applied to support transacting with parties in the over-the-counter markets. In this course attention is given to why these agreements are helpful and what purposes they serve.

This course covers the following video lessons:

1. Legal framework for bilateral deals
2. Contents of master agreements
3. Settlement process
4. Advantages of master agreements
5. Deal confirmation – Introduction
6. Deal confirmation – Confirmation process
7. Deal confirmation – Confirmation requirements
8. Deal confirmation – Confirmation tools
9. Defaulting
10. Contract termination
11. Force majeure
12. Industry standards
13. Industry standards – Developments over time
14. Industry standards – Int'l FX master – IFEMA
15. Industry standards – ISDA
16. Industry standards – IBMA
17. Industry standards – EFET
18. Industry standards – GTMA
19. Industry standards – SCoTA
20. Industry standards – IETA
21. Industry standards – Oil frameworks
22. Multi-asset masters & variations
23. LNG masters – Spot cargo
24. LNG masters – Price re-negotiation
25. LNG masters – Industry standards
26. LNG masters – Discrepancies
27. Credit Support Annex (CSA)
28. Credit lines & limits

A. Examination
B. Certification

❖ Level:	Basic	No prerequisites
❖ Intensity:	xx minutes	Including examination
❖ Language:	Voice & text	English
❖ Including:	Examination	Certification upon passing

COURSE:
REASONS TO TRANSACT

TRADING

This course covers the reasons to transact. It explains why market participants enter into deals. By means of video lessons is explained what motivates parties to buy or sell. Attention is given to various physical reasons to conclude deals, as well as various financial reasons to enter the market. Furthermore, the difference between hedging and speculation is set out and specific attention is given to particular concepts like asset-backed trading, proprietary trading and statistical arbitrage.

This course covers the following video lessons:

1. Reasons to transact – Introduction
2. Reasons to transact – Intermediary services
3. Reasons to transact – Commodity & capacity
4. Reasons to transact – Physical & financial reasons
5. Reasons to transact – Sourcing & sales
6. Reasons to transact – The black box concept
7. Reasons to transact – Balancing
8. Reasons to transact – Liquidation
9. Reasons to transact – Hedging
10. Reasons to transact – Asset-backed trading
11. Reasons to transact – Arbitrage
12. Reasons to transact – Speculation
13. Reasons to transact – Investing
14. Reasons to transact – Comparison
15. Reasons to transact – Proprietary trading
16. Reasons to transact – Statistical arbitrage

A. Examination
B. Certification

❖	Level:	Basic	No prerequisites
❖	Intensity:	35 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
BILATERAL DEALS & OTC TRADING

TRADING

This course contains animation-style videos with narration (and subtitles) which set out the characteristics of over-the-counter deal-making. It is explained in what sense it differs from exchange trading. Attention is given to tailoring of solutions, bespoke deals and counterparty risk.

This course covers the following video lessons:

1. Bilateral deal-making
2. Standard versus tailored solutions
3. Organised versus non-organised markets
4. On-venue versus off-venue
5. Listed versus non-listed products
6. Characteristics of OTC markets – Mediation services & discretion
7. Characteristics of OTC markets – Counterparty risk
8. Characteristics of OTC markets – Transparency versus anonimity
9. Characteristics of OTC markets – Market liquidity
10. Characteristics of OTC markets – Contract specificiations

A. Examination
B. Certification

❖ Level:	Basic	No prerequisites
❖ Intensity:	xx minutes	Including examination
❖ Language:	Voice & text	English
❖ Including:	Examination	Certification upon passing

COURSE:
BROKERS & BROKERAGE SERVICES

TRADING

This course contains animation-style videos with narration (and subtitles) which set out the role of brokers in the over-the-counter markets. Attention is given to brokerage services, the different types of brokers, the regulations they face and the communication tolls they have available to reach their clientele and, thus, market participants.

This course covers the following video lessons:

1. Introduction
2. Interdealer broker
3. Broker-dealer
4. Service level
5. Crossing orders
6. Client account & transactional account
7. Brokerage fee
8. Transaction costs
9. Regulation – Best price execution
10. Regulation – Post-trade central clearing
11. Commodity brokers
12. Broker industry bodies
13. Communication tools – Private & group communication
14. Communication tools – Voice-brokering
15. Communication tools – Advertisement screens
16. Communication tools – Electronic trading platform

A. Examination
B. Certification

❖	Level:	Intermediate	Prerequisites: basics of bilateral deals & OTC trading
❖	Intensity:	xx minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
OTC TRADING PLATFORMS

TRADING

This course contains animation-style videos with narration (and subtitles) which set out how orders are or can be routed at broker platforms and systems that support OCT trading. Attention is given to various functionalities and settings that can support market participants by providing them specific information.

This course covers the following video lessons:

1. Introduction
2. Order aggregation platform
3. Order routing
4. System functionalities & IT settings – Master agreement required
5. System functionalities & IT settings – Credit limits
6. System functionalities & IT settings – Synthetics & implicit pricing
7. System functionalities & IT settings – Hitting & lifting
8. System functionalities & IT settings – Book structure & accounting
9. System functionalities & IT settings – FX conversions
10. System functionalities & IT settings – Request for quote (RFQ)
11. Sleeving
12. Integration with exchange trading

A. Examination
B. Certification

❖	Level:	Advanced	Prerequisites: fundamentals of OTC markets and brokerage
❖	Intensity:	xx minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
EXCHANGE TRADING

TRADING

UNDER DEVELOPMENT

This course contains animation-style videos with narration which set out how exchange trading works and can be arranged for. Attention is given to membership, market access and transaction fees, as well as the central order book plus the related order processing and matching. The course also covers the processes of clearing and margining.

This course covers the following video lessons:

1.
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3.
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A. Examination
B. Certification

❖ Level:	Basic	No prerequisites
❖ Intensity:	xx minutes	Including examination
❖ Language:	Voice & text	English
❖ Including:	Examination	Certification upon passing

COURSE:
CENTRAL ORDERBOOK

TRADING

This course contains animation-style videos with narration which set out the working of the central order book, which is operated by trading venues. It is explained how orders are being processed and how pricing takes place. Besides, attention is given to market liquidity and what the bid-ask spread concerns. It is set out the difference between order initiation and aggression, which orders have priority and which rules apply to order execution.

This course covers the following video lessons:

1. Price formation – Introduction
2. Price formation – One-way pricing
3. Price formation – Two-way pricing
4. Price formation – Price drivers
5. Central order book – Introduction
6. Central order book – Order book details
7. Central order book – Rules of engagement
8. Central order book – Opening rotation
9. Central order book – During trading hours – Order submission
10. Central order book – During trading hours – Order initiation
11. Central order book – During trading hours – Order aggression
12. Central order book – During trading hours – Order execution
13. Central order book – Functioning
14. Central order book – Filling the order book
15. Central order book – RFQ
16. Central order book – Voice brokering
17. Central order book – Tick &tick size

A. Examination
B. Certification

❖	Level:	Basic	No prerequisites
❖	Intensity:	40 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
ORDER TYPES

TRADING

Market participants apply various orders types when submitting instructions to transact. The features differ per order type and can be used to the advantage of market participants. This way, specific desires can be met, taking into account economical, operational or logistical aspects.

This course covers the following video lessons:

1. Introduction
2. On-screen & off-screen
3. Algorithms
4. Market order
5. Limit order
6. Complex orders
7. Time-specific order
8. Good-for-day order
9. Good-till-date order
10. Good-till-cancelled order
11. Immediate-or-cancel order
12. Fill-or-kill order
13. All-or-nothing order
14. Pre-&post-trade auction
15. Market-or-limit-on-open-or-close order
16. Smart orders – Day ahead implicit electricity auction
17. Conditional orders
18. Stop order
19. Stop-limit order
20. Trailing-stop order
21. Market-if-touched order
22. One-cancels-the-other order
23. Iceberg order
24. Discretionary order
25. Prioritisation
26. Choice market

A. Examination
B. Certification

❖	Level:	Basic	No prerequisites
❖	Intensity:	40 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:

HEDGING STRATEGIES WITH FUTURES

TRADING

UNDER DEVELOPMENT

This course contains animation-style videos with narration (and subtitles) which set out how exposures to market risk can be hedged with term contracts, like forwards and futures. Different strategies are given attention by means of comprehensive examples.

This course covers the following video lessons:

1.
2.
3.
4.
5.
6.
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8.
9.
10.

A. Examination
B. Certification

❖ Level:	Intermediate	Prerequisites: basics of derivatives and/or forwards & futures
❖ Intensity:	xx minutes	Including examination
❖ Language:	Voice & text	English
❖ Including:	Examination	Certification upon passing

COURSE:
HEDGING STRATEGIES WITH SWAPS

TRADING

UNDER DEVELOPMENT

This course contains animation-style videos with narration (and subtitles) which set out how exposures to market risk can be hedged with swap contracts. Different strategies are given attention by means of comprehensive examples.

This course covers the following video lessons:

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10.

A. Examination
B. Certification

❖ Level:	Intermediate	Prerequisites: basics of derivatives and/or swaps
❖ Intensity:	xx minutes	Including examination
❖ Language:	Voice & text	English
❖ Including:	Examination	Certification upon passing

COURSE:
HEDGING STRATEGIES WITH OPTIONS

TRADING

UNDER DEVELOPMENT

This course contains animation-style videos with narration (and subtitles) which set out how exposures to market risk can be hedged with option contracts, like call options and put options. Different strategies are given attention by means of comprehensive examples.

This course covers the following video lessons:

1.
2.
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10.

A. Examination
B. Certification

❖ Level:	Intermediate	Prerequisites: fundamentals of options
❖ Intensity:	xx minutes	Including examination
❖ Language:	Voice & text	English
❖ Including:	Examination	Certification upon passing

COURSE:
METALS – *TRADING, DERIVATIVES & HEDGING*

TRADING

This course covers metal derivatives contracts. It is explained what these concerns and what they are used for. It is also set out what role the London Metals Exchange plays and how related aspects are organised.

This course covers the following video lessons:

1. Metal markets & trading
2. London Metal Exchange
3. Price discovery
4. LME - Price-indexation
5. Warehouses
6. Warehouse receipts
7. Metal futures
8. Metal options
9. Hedging metal exposures with futures
10. Hedging metal exposures with options

A. Examination
B. Certification

❖ Level:	Intermediate	Prerequisites: basics of metals + fundamentals of derivatives
❖ Intensity:	25 minutes	Including examination
❖ Language:	Voice & text	English
❖ Including:	Examination	Certification upon passing

COURSE:
AGRICULTURAL COMMODITIES – *TRADING, DERIVATIVES & HEDGING* TRADING

This course covers agro derivatives. It is explained what these are and how they can be applied. It is also set what strategies can be set up to mitigate risk and what risks appear in return.

This course covers the following video lessons:

1. Trading
2. Price exposure - A physical long position
3. Price exposure - A physical short position
4. Hedging a physical long agro position with futures
5. Hedging a physical short agro position with futures
6. Hedging a physical long agro position with options
7. Hedging a physical short agro position with options
8. Soybeans - Crush spread trading
9. The basis
10. Basis risk

A. Examination
B. Certification

❖	Level:	Intermediate	Prerequisites: basics of agro commodities + derivatives
❖	Intensity:	30 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
SPREADS & SPREAD TRADING

TRADING

This course covers the concept of spreads. It includes futures, spreads, option spreads and spread options. attention is given to position management and asset-back trading.

This course covers the following video lessons:

1. Introduction
2. Differential - Location spread
3. Differential - Time spread
4. Differential - Seasonal spread
5. Differential - Cross-commodity spread
6. Differential - Margin spread
7. Differential - Differential spread
8. Differential - Quality spread
9. Futures spread - The legs
10. Futures spread - Varieties
11. Futures spread - Location spread
12. Futures spread - Time spread
13. Futures spread - Cross-commodity spread - Introduction
14. Futures spread - Cross-commodity spread - Spark spread
15. Futures spread - Cross-commodity spread - Dark spread
16. Futures spread - Cross-commodity spread - Black spread
17. Futures spread - Cross-commodity spread - Crack spread
18. Futures spread - Cross-commodity spread - Crush spread
19. Futures spread - Opening a time spread position
20. Futures spread - Closing a time spread position
21. Futures spread - Opening a location spread position
22. Futures spread - Closing a location spread position
23. Futures spread - Opening a cross-commodity spread position
24. Futures spread - Closing a cross-commodity spread position
25. Spread products - Bid-ask spread
26. Option spread – Introduction
27. Option spread - Vertical spread
28. Option spread - Horizontal spread
29. Option spread - Diagonal spread
30. Spread option – Introduction
31. Spread option - Location spread option
32. Spread option - Time spread option
33. Spread option - Cross-commodity option

A. Examination
B. Certification

❖ Level:	Intermediate	Prerequisites: basics of term contracts (forwards & futures)
❖ Intensity:	75 minutes	Including examination
❖ Language:	Voice & text	English
❖ Including:	Examination	Certification upon passing

COURSE:
ALGORITHMIC TRADING

TRADING

This course explains what algorithmic trading concerns and strategies are being applied by this technique. It is also set out characteristics and forms it has. Furthermore, attention is given to particular aspects related to the application of algos.

This course covers the following video lessons:

1. What is an algorithm?
2. Order types
3. Classes of trading algorithms
4. Relevant concepts & terminology
5. Algorithmic trading strategies
6. Computer code
7. Artificial intelligence
8. Robots & intelligent information
9. Machine learning
10. High frequency trading
11. Bandwidth
12. Co-location
13. Order-to-trade ratio
14. Fee structure

A. Examination
B. Certification

❖	Level:	Basic	No prerequisites
❖	Intensity:	35 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
TYPES OF TRADERS

TRADING

This course covers the variety and types of traders in the markets. Basically, there are different functions that may have markets access and can conclude transactions. However, they do so for different purposes. This is set out in various video lessons.

This course covers the following video lessons:

1. Upstream, midstream & downstream activities
2. Upstream, midstream & downstream traders
3. Classification based on time horizon
4. Originators, asset traders, portfolio traders & shift traders
5. Proprietary traders

A. Examination
B. Certification

❖ Level:	Basic	No prerequisites
❖ Intensity:	10 minutes	Excluding examination
❖ Language:	Voice & text	English
❖ Including:	Examination	Certification upon passing

COURSE:
FEE STRUCTURES

TRADING

This course goes into depth on the cost of deal-making and the setup of the trading environment. After all, traders need to have market access but this may come at a cost. Next, there are transaction cost upon the conclusion of every deal. Hence, there are one-off expenses and recurring costs. The features of the cash outflows are covered in the video lessons.

This course covers the following video lessons:

1. Exchange-trading versus OTC trading
2. Brokerage fees
3. Exchange-related fees
4. Clearing fees
5. Various trading fees
6. Bandwidth
7. Co-location
8. Market data

A. Examination
B. Certification

❖ Level:	Basic	No prerequisites
❖ Intensity:	10 minutes	Excluding examination
❖ Language:	Voice & text	English
❖ Including:	Examination	Certification upon passing

COURSE:

THE TRADING DESK – *TRADING TOOLS & TECHNICALITIES* TRADING

This course explains the tools applied in trading. It is also set out what technologies and technicalities are relevant when mastering trading. When covering these aspects, attention is given from the perspectives of both manual and algorithmic trading.

This course covers the following video lessons:

1. The diversity of trading desks
2. Trading technology
3. The setup of a trading desk
4. Communication tools
5. Broker-supported tools
6. More tools
7. Data & news feed
8. Specific applications
9. The costs of a trading desk

A. Examination
B. Certification

❖	Level:	Basic	No prerequisites
❖	Intensity:	15 minutes	Excluding examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
RISK & OPPORTUNITY

RISK MANAGEMENT

Risk and opportunity belong to each other. On a coin one would be the flip side of the other. In this course it is explained what these concepts concern and how they can be measured. Price behaviour is covered, as well as probability distributions and their characteristics.

This course covers the following video lessons:

1. Risk versus uncertainty
2. Risk versus maximum loss
3. Price behaviour – Price dynamics & Forecasting
4. Price behaviour – Market analysis
5. Price behaviour – Price behaviour
6. Price behaviour – Random walk
7. Price behaviour – Statistics – Stochastic variables
8. Price behaviour – Statistics – Stochastic processes
9. Price behaviour – Mean reversion
10. Price behaviour – Moving averages
11. Probability distribution – Histogram versus distribution
12. Probability distribution – Cumulative
13. Probability distribution – Uniform
14. Probability distribution – Discrete
15. Probability distribution – Continuous
16. Probability distribution – Normal
17. Probability distribution – Relevant characteristics
18. Probability distribution – Log-normal
19. Probability distribution – Mean versus median
20. Price behaviour – Statistics – General
21. Price behaviour – Statistics – Variance
22. Price behaviour – Statistics – Covariance
23. Price behaviour – Statistics – Variance versus covariance
24. Price behaviour – Statistics – Covariance versus correlation
25. Risk analysis
26. Risk-return ratio
27. Risk – Definition
28. The subjectivity of management decisions
29. Risk quantification

A. Examination
B. Certification

❖	Level:	Basic	No prerequisites
❖	Intensity:	60 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
RISK MANAGEMENT

This course covers how companies setup and operate a risk management function. It includes the basics of performing risk management, such as policies, methodologies and he organisation and infrastructure. The course also covers the application of models and limit structures.

This course covers the following video lessons:

1. Enterprise-wise risk management
2. Central or local setup
3. Tasks
4. Responsibilities
5. Three pillars of effective risk management – Policies
6. Three pillars of effective risk management – Methodologies
7. Three pillars of effective risk management – Organisation & infrastructure
8. Trade & risk management systems – Introduction
9. Trade & risk management systems – Vendor selection
10. Implementation of dynamic risk management – 10 steps
11. Criteria for a risk model – Introduction
12. Criteria for a risk model – Qualitative criteria
13. Criteria for a risk model – Quantitative criteria
14. Criteria for a risk model – Criticism & support
15. Risk model – Modeling
16. Risk model – Calibration
17. Risk model – Choosing the ideal model
18. Model risk – Assumptions
19. Model risk – Fat tails
20. Model risk – Skewness
21. Limit structures – Introduction
22. Limit structures – By trading venues
23. Limit structures – By clearing organisations
24. Limit structures – By firms with a trading function – Introduction
25. Limit structures – By firms with a trading function – Position limit
26. Limit structures – By firms with a trading function – Risk limit
27. Limit structures – By firms with a trading function – Stop-loss limit
28. Limit structures – By firms with a trading function – Limits on Greek parameters
29. Limit structures – By firms with a trading function – Volume limit & Price limit at front office
30. Limit structures – By firms with a trading function – From business activity to limit

A. Examination
B. Certification

❖	Level:	Basic	No prerequisites
❖	Intensity:	80 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
TRADING & RISK MANAGEMENT SYSTEMS

RISK MANAGEMENT

This course covers the supportive tool 'trading & risk management systems'. It is explained for what reasons the business function (traders) make use of the software, why control functions use the technology, and why support functions use the tool. It is also set out what features a trading and risk management system has.

This course covers the following video lessons:

1. Introduction
2. Motive
3. Cross functional support
4. Various risk tools with different functions
5. Vendor selection

A. Examination
B. Certification

❖ Level:	Basic	No prerequisites
❖ Intensity:	10 minutes	Excluding examination
❖ Language:	Voice & text	English
❖ Including:	Examination	Certification upon passing

COURSE:
VALUE AT RISK

RISK MANAGEMENT

This course provides insight in the concept of risk and explains how it differs from uncertainty. The lessons cover in-depth the quantification of risk by means of various methodologies, both on the level of an individual position and a complex portfolio. Next to value at risk, stress tests are given attention.

This course covers the following video lessons:

1. Dynamic & flexible
2. The meaning of the value at risk
3. 3 value at risk methods – Introduction
4. The parametric approach
5. Linearity versus non-linearity
6. Relevant parameters – Introduction
7. Relevant parameters – Confidence level
8. Relevant parameters – Time horizon
9. Relevant parameters – Typical settings
10. Historical simulation – Introduction
11. Historical simulation – Pros & cons
12. Monte Carlo simulation – Introduction
13. Monte Carlo simulation – Models
14. Monte Carlo simulation – Different probability distributions
15. Monte Carlo simulation – Step-by-step application
16. Monte Carlo simulation – Practical application in Excel
17. Stress testing – Introduction
18. Stress testing – Ways to perform stress tests
19. Stress testing – Worst case performance & worst losing streak
20. Stress testing – Expected shortfall – Introduction
21. Stress testing – Expected shortfall – Example
22. Stress testing – Disadvantages
23. 3 value at risk methods – Advantages & disadvantages – Comparison
24. 3 value at risk methods – Advantages & disadvantages – Listings
25. Calculations – Individual position - 1
26. Calculations – Individual position - 2
27. Calculations – Portfolio – 2 positions
28. Calculations – Correlation coefficients – Impact on VaR
29. Calculations – Correlation coefficients – Limitations
30. Calculations – Portfolio – 3 positions
31. Calculations – VaR versus P&L
32. Calculations – FX exposures
33. Cash flow at risk

A. Examination
B. Certification

❖	Level:	Intermediate	Prerequisites: basics of risk & opportunity
❖	Intensity:	100 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
EXPOSURES & FINANCIAL PERFORMANCE

RISK MANAGEMENT

This course covers the characteristics of exposures as well as term contract positions. It explains how these two can off-set each other. Hence, it is explained that hedging of an exposure with a term contract position works as long as these two have an opposite risk-reward profile. Attention is also given to the closing of the hedge position, or its settlement.

This course covers the following video lessons:

1. Exposures & hedging
2. Exposure – Physical short – Consumer
3. Exposure – Physical long – Producer
4. Financial performance – Long term contract
5. Financial performance – Short term contract
6. Financial performance – Closing a position
7. Financial performance – Settlement instead of closing

A. Examination
B. Certification

❖	Level:	Basic	No prerequisites
❖	Intensity:	15 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
HEDGING STRATEGIES FOR COMMODITY PRODUCERS

RISK MGT.

This course covers how commodity producers can mitigate market risk. It explains how their exposures can be hedged and what type of instruments can be used for this matter. The applied tools concerns various types of derivatives, namely forwards or futures, options and swaps; all of which are settled in cash.

This course covers the following video lessons:

1. Term contracts
2. European-style put option
3. Asian-style put option
4. Zero-cost collar
5. Put spread
6. 3-way collar
7. Swap on average
8. Floored swap
9. Participation swap
10. Range-out swap

A. Examination
B. Certification

❖	Level:	Advanced	Prerequisites: basics of derivatives (futures, swaps, options)
❖	Intensity:	30 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
HEDGING STRATEGIES FOR COMMODITY CONSUMERS

RISK MGT.

This course covers how commodity consumers can mitigate market risk. It explains how their exposures can be hedged and what type of instruments can be used for this matter. The applied tools concerns various types of derivatives, namely forwards or futures, options and swaps; all of which are settled in cash.

This course covers the following video lessons:

1. Term contracts
2. European-style call option
3. Asian-style call option
4. Zero-cost collar
5. Call spread
6. 3-way collar
7. Swap on average
8. Capped swap
9. Participation swap
10. Range-out swap

A. Examination
B. Certification

❖	Level:	Advanced	Prerequisites: basics of derivatives (futures, swaps, options)
❖	Intensity:	30 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
FLEXIBILITY

RISK MANAGEMENT

This course sets out what flexibility in commodity & energy portfolios concerns, by giving attention to embedded business decisions in supply contracts and physical capacity. Attention is given to different forms or varieties of flexibility and how this can be seen as optionality.

This course covers the following video lessons:

1. Flexibility in physical assets
2. Flexibility in supply contracts
3. Embedded options
4. Structured contracts
5. Modelling of embedded options
6. Modelling business decisions
7. Supply contract - Take-or-pay
8. Supply contract - Volume flexibility
9. Supply contract - Swing option
10. Supply contract - ACQ & DCQ
11. Supply contract - Click contract - Introduction
12. Supply contract - Click contract - Price cap
13. Supply contract - Click contract - Multiple clicks
14. Supply contract - Validity period of proposal
15. Supply contract - Supplier portfolios full of optionality
16. Supply contract - Volume flexibility - Modelling
17. Supply contract - Volume flexibility_Hedging embedded optionality
18. Supply contract - Volume flexibility_Hedging embedded optionality - Market liquidity
19. Supply contract - Volume flexibility_Hedging embedded optionality - Possible scenarios
20. Supply contract - Volume flexibility_Delta-hedging with term contracts
21. Supply contract - Volume flexibility_Delta-hedging with term contracts - Periodic adjustments
22. Supply contract - Volume flexibility - Delta-hedging with term contracts - Objectivity-subjectivity
23. Supply contract - Swing optionality - Introduction
24. Supply contract - Swing optionality - The value of swing options
25. Supply contract - Swing optionality - Hedging with futures
26. Physical capacity - Input & output
27. Physical capacity - Future margin

A. Examination
B. Certification

❖	Level:	Expert	Prerequisites: master futures + conceptual thinking capability
❖	Intensity:	95 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
MODELLING

RISK MANAGEMENT

This course covers how flexibility in commodity & energy portfolios can be viewed. Based on the real option approach flexibility can be modelled in terms of optionality. It is explained that this is useful for valuation and hedging purposes, plus how this can take place.

This course covers the following video lessons:

1. For valuation & hedging purposes
2. Spread option valuation
3. Storage capacity - Hedging the time spread exposure
4. Storage capacity - Time spread option
5. Storage capacity - Hedging call on time spread
6. Storage capacity - Complexity
7. Transport capacity - Hedging the location spread exposure
8. Transport capacity - Location spread option
9. Production & consumption capacity - Margin option
10. Production & consumption capacity - Power plants
11. Production & consumption capacity - Refinery & crusher
12. Hedging spread options versus hedging capacity
13. Liquidating hedge on outright position
14. Liquidating hedge on storage capacity
15. Liquidating hedge on transport capacity
16. Liquidating hedge on processing capacity
17. Dynamically hedging an outright option
18. Dynamically hedging a spread option - Strategy
19. Dynamically hedging a spread option - Details
20. Model versus reality - Mismatch of characteristics
21. Model versus reality - Number of options & granularity
22. Model versus reality - Path-dependency
23. Model versus reality - Path-dependency - Forward start option
24. Model versus reality - Path-dependency - Exchange option
25. Model versus reality - Path-dependency - Lookback option
26. Model versus reality - Path-dependency – Barrier option
27. Modelling power generation capacity - Types of capacity
28. Modelling power generation capacity - Gas plant - Cross-commodity options
29. Modelling power generation capacity - Gas plant - Number of options
30. Modelling power generation capacity - Gas plant - Specific characteristics

A. Examination
B. Certification

❖	Level:	Expert	Prerequisites: master options + conceptual thinking capability
❖	Intensity:	120 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
CLEARING

TRADE OPERATIONS

Clearing is a crucial process in trade operations. Clearing is applied in case of exchange-trading, although OTC deals can also be cleared. How clearing works and what it concerns is set out in this course. The roles of various parties is described, amongst which are central counterparties and (general) clearing members.

This course covers the following video lessons:

1. Counterparty risk
2. Master agreement
3. Credit risk management
4. What is clearing?
5. Clearing activities
6. Novation
7. Central counterparty clearing
8. OTC-cleared
9. Central counterparty
10. Clearing members
11. Brokers
12. Default fund
13. Side-effects of central clearing – Static effects
14. Side-effects of central clearing – Dynamic effects
15. Side-effects of central clearing – Second round effects

A. Examination
B. Certification

❖	Level:	Intermediate	Prerequisites: fundamentals of trading
❖	Intensity:	35 minutes	Including examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:
NETTING

TRADE OPERATIONS

Netting is a sub-process clearing & settlement. Netting can be organised in case of OTC transactions as well with exchange-trading. Hence, it is either performed bilaterally or multilaterally. How this works and what its consequences are is set out in this course.

This course covers the following video lessons:

1. Introduction
2. Netting by novation
3. Close-out netting
4. Settlement netting
5. Advantages of netting
6. Bilateral versus multilateral netting

A. Examination
B. Certification

❖ Level:	Intermediate	Prerequisites: fundamentals of trading
❖ Intensity:	15 minutes	Excluding examination
❖ Language:	Voice & text	English
❖ Including:	Examination	Certification upon passing

COURSE:
MARGINING

TRADE OPERATIONS

Margining is a crucial process in trade operations. It is a sub-process of clearing. During the lifetime of a contract security has to be arranged for. How this works is set out in this course, including initial margin and variation margin, as well as cross-margining. This course covers the following video lessons:

1. Counterparty risk management
2. Initial margin
3. Variation margin
4. Margin call
5. Bilateral deals
6. Exchange-trading
7. Fee structure
8. Novation
9. The process of margining
10. Direct & general clearing members
11. Initial margin to financially manage close-out
12. Settlement
13. Daily calculations
14. Leverage
15. Cost of capital
16. Replacement risk & credit risk
17. Mutual & non-mutual margin requirements
18. Money transfer & margin requirement
19. The margining process
20. Variation margin calculation
21. Initial margin calculation
22. Periodic reconsiderations
23. Cash management & price data
24. General clearing members
25. Direct market access
26. Cross-margin – Introduction
27. Cross-margin – Price correlation
28. Requirements for options – Introduction
29. Requirements for options – Calculations
30. Requirements for options – Maintenance margin
31. Requirements for options – Haircut

A. Examination
B. Certification

❖ Level:	Intermediate	Prerequisites: fundamentals of trading + risk & opportunity
❖ Intensity:	60 minutes	Excluding examination
❖ Language:	Voice & text	English
❖ Including:	Examination	Certification upon passing

COURSE:
SETTLEMENT

TRADE OPERATIONS

Settlement is a crucial process in trade operations. At maturity a contract has to be respected and agreements have to be effectuated. How this works is set out in this course. This course covers the following video lessons:

1. Introduction
2. Settlement types
3. Supply contracts vs. derivatives
4. Physical delivery vs. cash settlement
5. Settlement risks
6. Avoiding physical delivery
7. Settlement date
8. Dynamics in settlement dates
9. Cash settlement
10. Contracts with delivery moment – Introduction
11. Contracts with delivery moment – Last trading day & maturity
12. Contracts with delivery moment – Seller's choice
13. Contracts with delivery moment – Physical delivery
14. Contracts with delivery period – Introduction
15. Contracts with delivery period – Time-to-maturity
16. Invoicing & payment
17. Specific differences
18. First & last notice day
19. Closing or rolling
20. Exchange-traded futures vs. OTC-traded forwards
21. Alternative delivery procedure
22. EFP – Introduction
23. EFP – Applications
24. EFP – Applications – Swap futures for physicals
25. EFP – Applications – Open a futures position
26. EFP – Applications – Close a futures position
27. EFS – Exchange of futures for swaps
28. Trading at settlement
29. TAS order initiation & matching
30. Trading at marker
31. Contracts with delivery period – Settlement
32. Contracts with delivery period – Lower margin requirement during delivery
33. Contracts with delivery period – Cascading – Introduction
34. Contracts with delivery period – Cascading – Volume neutrality
35. Contracts with delivery period – Cascading – Value neutrality
36. Contracts with delivery period – Cascading – The objective
37. Contracts with delivery period – Cascading – Impacting margin requirements

A. Examination
B. Certification

❖	Level:	Intermediate	Prerequisites: fundamentals of trading
❖	Intensity:	85 minutes	Excluding examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

COURSE:

FINANCE – *ACCOUNTING*

TRADE OPERATIONS

Accounting is an important process in any company, including trading entities. Daily and end-of-period positions have to be valuated. There are various methods to arrange this; around the globe quite some regimes are being applied. The differences are set out in this course.

This course covers the following video lessons:

1. Introduction
2. Pricing versus valuation
3. Mark-to-Market valuation vs fair value accounting
4. Mark-to-Model accounting
5. Accounting regimes

A. Examination
B. Certification

❖	Level:	Intermediate	Prerequisites: fundamentals of trading
❖	Intensity:	10 minutes	Excluding examination
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

THE ONLINE LEARNING ENVIRONMENT

TRAINING COURSES & THEIR MODULES

CONTENT & INTENSITY

COVERAGE BY VIDEO LESSONS *(RECORDED TUTORED SESSIONS)*
- ALL INCLUDING EXAMINATION & CERTIFICATION

TRAINING:
FUNDAMENTALS OF COMMODITY MARKETS

About commodities, the value chain, markets & pricing, and covering a comparison with financial markets.

1. **Kick–off session**
   - Expectations management
2. **Asset classes – *Types of markets***
   - About fixed-income, equity, real estate, FX and commodities
   - Concerning risk-reward ratios and risk appetite
3. **Commodities & commodity markets**
   - About metals, softs & energy, but also freight, carbon & fibres
   - Covering relationships
4. **Production, storage, transport & consumption – *Up-, mid- & downstream***
   - Concerning various types of capacity
   - Including availability and utilization
5. **Market participants & their role**
   - About commodity trading firms & investors
   - Covering risk diversification
6. **Spot & forward markets – *Physical & financial products***
   - Covering the concept of price volatility
   - Specifics concerning electricity & natural gas - Balancing
7. **Commodity derivatives – *Contract specifications & settlement***
   - Physical delivery & cash settlement.
   - Delivery period & delivery moment
8. **Pricing of commodities – *Price driving factors***
   - Fundamental & non-fundamental price driving factors
   - Price analysis, including seasonality & mean-reversion
9. **Commodity markets vs. Financial markets**
   - Differences and similarities between the characteristics
   - A comparison is made concerning markets, products & pricing
10. **The role of speculators**
    - About the impact of speculators on price levels
    - Concerning politicians, policy makers & regulation

INTENSITY:
- **130 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
FUNDAMENTALS OF TRADING

Covering the who, why, where, when and how of trading, plus related concepts, processes and terminology.

1. **Kick–off session**
   - Expectations management
2. **Liberalisation of the Energy Markets**
   - What is aim of liberalisation? What are the consequences?
3. **Risk**
   - Risk and return; the risk-reward ratio; quantification vs. qualification
4. **Market risk**
   - About price risk
5. **Risk management**
   - Identification of risk, measuring risk and control of risk
6. **Volatility**
   - The concept volatility explained; calculation & interpretation of volatility figures
7. **Counterparty risk**
   - Credit risk and delivery risk
8. **Credit risk management**
   - Clearing; netting; credit limits; ratings; sleeving; systemic risk
9. **Liquidity & Liquidity risk**
   - Market liquidity vs. funding liquidity
10. **The trading function**
    - The role of trading business unit
11. **The trading organisation**
    - Front, Middle & Back Office
12. **Trading**
    - What is it and how is it organised?
13. **Trading – The reasons for concluding transactions**
    - About procurement, sales, balancing, hedging, arbitrage and speculation
14. **Pricing – The order book**
    - How does trading take place? How are prices set? What orders are executed? When? How?
15. **Trading – Order types**
    - What order types are applied and for what reasons?
16. **Trading process – Clearing**
    - Central counterparty; clearing house & members; credit risk; margining & collateralisation
17. **Trading process – Settlement**
    - Physical delivery versus cash settlement; settlement procedures

18. **Trading process – Transaction flow**
    - Pre-trade, trade & post-trade processes; tasks & responsibilitis of front, mid & back office staff
19. **Trading process – ETRM system**
    - Energy trading and risk management software; users and purposes
20. **Markets & Products – Spot vs. Forward markets**
    - Spot/prompt vs. forward/futures markets
21. **Markets & Products – Derivatives**
    - What are derivatives? What are they used for? And by whom?
22. **Markets & Products – Forwards vs. Futures**
    - What are the differences?
23. **Markets & Products – Contract for difference**
    - What is a CFD?
24. **Markets & Products – Swaps**
    - What is a swap?
25. **Markets & Products – Options**
    - What is a (call/put) option?
26. **Trading platforms – OTC markets & trading**
    - How is OTC trading organized? What are master agreements?
27. **Trading platforms – Brokerage services**
    - What is a broker? Inter-dealer brokers vs. broker-dealers
28. **Trading platforms – Exchange trading**
    - What features does exchange trading have? How is it organized? Fee structure
29. **Trading platforms – Trading screens & platforms**
    - What details are relevant to traders?
30. **Pricing, price drivers & indexation**
    - What factors drive prices? What is an index?
31. **FX markets & trading**
    - Exchange rates, Forex exposures; the role of the treasury department
32. **Accounting – Valuation**
    - Bookkeeping & accounting rules; M-to-M
33. **Accounting – Book structure**
    - How do firms organize internal transfers? What is a book structure? How is accounted for P/L?
34. **Terminology – Upstream, midstream & downstream**
    - Explanation of the terminology which is related to the value chain
35. **Terminology – Opening & Closing + Long & Short**
    - What do the concepts of long or short imply? And opening or closing?

INTENSITY:
- **340 MINUTES** *(VIDEO LESSONS)*
- **1 EXAM**

TRAINING:
OIL – *BASIC LEVEL*

About the physical aspects of oil, its value chain, pricing and the oil spot markets.

1. **Kick–off session**
   - Expectations management
2. **Oil value chain – Physicality**
   - Production and consumption in a nutshell
   - About transport and storage of crude and refinery products
3. **Reserves & Production**
   - About exploration & production – Production sharing agreement
   - Concerning reserves – conventional and unconventional
   - Covering recovery rates & enhanced recovery techniques
4. **Crude oil – Grades & benchmarks**
   - About the quality of oil – Sweet vs. sour & light vs. heavy
   - Concerning the consequences for refining and pricing
5. **Refining – Refinery capacity & crack spread**
   - About the refening process, the output
   - Concerning the gross processing margin of refineries
   - Covering spare capacity and volatility of the crack spread
6. **Crude selection – Product slate**
   - About refinery products - The output of a refinery
   - Concerning decision making: The growth product worth
7. **Transport – Pipelines & tankers**
   - About transportation – Oil tankers
   - Concerning main routes and the challenges
   - Geo-politics
8. **Contracts & pricing – Price drivers**
   - About substitution (crude substitution; renewables)
   - Indexation – Platts indices
   - The role of speculation
9. **OPEC – Role & developments**
   - The influence of the cartel on pricing
   - Agreements within the organisation
   - Development of its role over time; spare capacity & renewables

INTENSITY:
- **160 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
OIL – *INTERMEDIATE LEVEL*

About the oil forward markets, exchange-traded oil futures, forward curves, hedging with term contracts and settlement of futures.

1. **Kick–off session**
   - Expectations management

Forward oil markets

2. **Oil forward markets**
   - Convering the differences between spot & forward markets
   - About price volatility in spot & forward markets; mean reversion
3. **Oil exchanges & brokers**
   - About OTC markets and trading venues for oil
   - Concerning market liquidity, notional value and open interest

Oil term contracts

4. **Oil forwards & futures – The varieties**
   - Concerning the most commonly known contracts
   - The time-to-maturity and delivery moment/period
5. **Oil forwards & futures – The application**
   - Covering asset-backed trading as well as proprietary trading
   - About managing crude & derivatives exposures
6. **Oil forwards curves – Pricing of oil forwards & futures**
   - About contango & backwardation, including seasonality
   - Covering the convenience yield

Hedging of oil exposures

7. **Hedging oil refinery capacity – Trading crack spreads**
   - About procurement & sales on a forward basis; contract mgt
   - Covering crack spreads; what these are & how to trade these
8. **Hedging oil storage capacity – Trading time spreads**
   - Locking in potential margins on a forward basis
   - Covering time spreads; what these are & how to trade these
9. **Hedging oil transport capacity – Trading location spreads**
   - Locking in potential margins on a forward basis
   - Covering location spreads; what these are & how to trade these

Settlement of oil term contracts

10. **Settlement of oil forwards & futures – Part 1**
    - Including physical delivery & cash settlement
    - Covering the exchange for physicals (EFP) mechanism
11. **Settlement of oil forwards & futures – Part 2**
    - About trading at settlement (TAS)
    - Concerning the alternative delivery procedure

INTENSITY:
- **180 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
OIL – *ADVANCED LEVEL*

About oil portfolio management, as well as oil swaps & oil options and their application to hedge oil exposures.

1. **Kick–off session**
   - Expectations management

Oil portfolio management

2. **Accounting – Book structure & internal transfers**
   - About internal transactions & prices, including premiums
   - Concerning book structures, cost allocation & P/L responsibility
   - Covering upstream, midstream & downstream activities.
3. **Customer portfolio**
   - About oil supply contracts; including load forecast
   - Concerning circumstances, e.g. weather, economic situation
4. **Physical oil assets**
   - About make-or-buy decisions & asset-backed trading
   - Aggregation of rights & obligations (prod., cons. & settlement)

Oil derivatives & flexibility

5. **Oil swaps – Physical settlement**
   - Concerning solutions for problem solving in the physical world
   - About basis swaps, or location swaps
6. **Oil swaps – Cash settlement**
   - About financially-settled agreements, including indexation
   - Concerning fixed-for floating contracts
7. **Oil options – Outright options**
   - About tradable contracts in the OTC markets & on exchange
   - Pricing of oil options; intrinsic value plus time value
8. **Oil options – Application for hedging purposes**
   - About hedging natural short/long positions with call/put options
   - About oil price caps & floors
9. **Oil options – Embedded optionality**
   - About volume flexibility & swing optionality in supply contracts
   - Covering structuring, including contracted quantities

INTENSITY:
- **150 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
OIL – *EXPERT LEVEL*

About oil risk management and the modeling of flexibility in oil portfolios.

1. **Kick–off session**
   - Expectations management

Oil risk management

2. **Oil risk management – Value-at-risk (VaR) of an oil position**
   - About the a commonly applied method to quantify an exposure
   - Covering the relevant time horizon and confidence level
3. **Oil risk management – Risk off-set due to correlation**
   - About statistical data and concepts, and how to apply these
   - Concerning pairs or proxies
4. **Oil risk management – Value-at-risk (VaR) of an oil portfolio**
   - About the quantification of aggregated oil positions
   - Considerig opposing long/short positions & correlated positions
5. **Oil risk management – Off-setting risk due to opposing exposures**
   - About risk off-setting and netting
   - Covering portfolio integration and cross-margining

Modelling flexibility

6. **Modelling – The real option approach**
   - About production capacity, transport capacity & storage capacity
   - About management decisions, such as the right to dispatch
7. **Modelling – Physical oil assets as real options**
   - Considering oil rigs, oil refineries, oil pipelines and oil storages
   - About call options on the crack/time/location spread
8. **Modelling – Complexity: Valuation & hedging of spread options**
   - About structuring, including exotic options
   - Including spread option valuation models, e.g. Margrabe
9. **Modelling – Optimizing the hedges**
   - About hedging strategies, e.g. proxy-hedging
   - Concerning dynamic risk management; Delta-hedging

INTENSITY:
- **180 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
GAS – *BASIC LEVEL*

About the physical aspects of gas, its value chain, pricing and the gas spot markets.

1. **Kick–off session**
   - Expectations management
2. **The gas value chain - Physicality**
   - Production & consumption of natural gas in a nutshell
   - About transportation & storage of gas
3. **Gas reserves & production – Conventional & unconventional**
   - Conventional & unconventional reserves; Europe's dependency
   - Concerning production techniques & the shale gas revolution
4. **Gas quality – Calorific value, Wobbe-index & quality conversion**
   - Concerning high calorific gas and low calorific gas
   - About the quality of natural gas & the conversion of it
5. **Gas transport – LNG, pipelines, TSOs & balancing**
   - About the role of TSOs and balancing regimes
   - Concerning gas transport and cross-border capacity
   - Re liquefied natural gas (LNG)– Liquefaction & regasification
6. **Gas balancing – Balancing regimes, line-pack & imbalances**
   - Covering an example about the Dutch gas market (TTF)
   - Covering causers, helpers & incentives
7. **Gas storage – Types & reasons for allocation**
   - About salt caverns, aquifiers and gas field
   - Concerning injection and withdrawal, working volume and cost
   - Covering security of supply, balancing & seasonality
8. **Gas hubs & gas products – Market conventions**
   - Concerning physical and virtual hubs, incl. NBP, TTF, NCG & HH
   - Spot products – Hourly products Within day & Day ahead market
   - Summer & Winter contracts – Gas day, gas year & EFA calendar
9. **Gas contracts & pricing – Price drivers & oil-indexation**
   - About oil-indexed gas contracts – Arbitrage in contracting
   - Concerning gas-to-gas pricing, gas-to-oil pricing and indices
   - About flexibility in supply contracts – ACQ & DCQ

INTENSITY:
- **150 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
GAS – *INTERMEDIATE LEVEL*

About the gas forward markets, exchange-traded gas futures, forward curves, hedging with term contracts and settlement of futures.

1. **Kick–off session**
   - Expectations management

Forward gas markets

2. **Gas forward markets**
   - Convering the differences between spot & forward markets
   - About price volatility in spot & forward markets; mean reversion
3. **Gas exchanges & brokers**
   - About OTC markets and trading venues for natural gas & LNG
   - Concerning market liquidity, notional value and open interest

Gas term contracts

4. **Gas forwards & futures – The varieties**
   - Concerning the most commonly known contracts
   - The time-to-maturity and delivery moment/period
5. **Gas forwards & futures – The application**
   - Covering asset-backed trading as well as proprietary trading
   - About managing gas-related exposures
6. **Gas forwards curves – Pricing of gas forwards & futures**
   - About contango & backwardation, including seasonality
   - Covering the convenience yield

Hedging of gas exposures

7. **Hedging gas production & consumption capacity**
   - About procurement & sales on a forward basis; contract mgt
   - Covering assuring future cash flows by price fixation
8. **Hedging gas storage capacity**
   - Locking in potential margins on a forward basis
   - Covering time spreads; what these are & how to trade these
9. **Hedging gas transport capacity**
   - Locking in potential margins on a forward basis; NG & LNG
   - Covering location spreads; what these are & how to trade these

Settlement of gas term contracts

10. **Settlement of gas forwards & futures – Part 1**
    - Including physical delivery & cash settlement
    - Covering nomination & periodic invoicing
11. **Settlement of gas forwards & futures – Part 2**
    - Concerning the process of cascading
    - Covering the consequences of it for the gas portfolio

INTENSITY:
- **160 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
GAS – *ADVANCED LEVEL*

About gas portfolio management, as well as gas swaps & gas options and their application to hedge gas exposures.

1. **Kick–off session**
   - Expectations management

Gas portfolio management

2. **Accounting – Book structure & internal transfers**
   - About internal transactions & prices, including premiums
   - Concerning book structures, cost allocation & P/L responsibility
   - Covering upstream, midstream & downstream activities
3. **Customer portfolio**
   - About gas supply contracts; including load forecast
   - Concerning circumstances, e.g. weather, economic situation
4. **Physical gas assets**
   - About make-or-buy decisions & asset-backed trading
   - Aggregation of rights & obligations (prod., cons. & settlement)

Gas derivatives & flexibility

5. **Gas swaps – Physical settlement**
   - Concerning solutions for problem solving in the physical world
   - About basis swaps, or location swaps
6. **Gas swaps – Cash settlement**
   - About financially-settled agreements, including indexation
   - Concerning fixed-for floating contracts
7. **Gas options – Outright options**
   - About tradable contracts in the OTC markets & on exchange
   - Pricing of gas options; intrinsic value plus time value
8. **Gas options – Application for hedging purposes**
   - About hedging natural short/long positions with call/put options
   - About gas price caps & floors
9. **Gas options – Embedded optionality**
   - About volume flexibility & swing optionality in supply contracts
   - Covering structuring, including ACQ & DCQ

INTENSITY:
- **150 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
GAS – *EXPERT LEVEL*

About gas risk management and the modeling of flexibility in gas portfolios.

1. **Kick–off session**
   - Expectations management

Gas risk management

2. **Gas risk management – Value-at-risk (VaR) of a gas position**
   - About the a commonly applied method to quantify an exposure
   - Covering the relevant time horizon and confidence level
3. **Gas risk management – Risk off-set due to correlation**
   - About statistical data and concepts, and how to apply these
   - Concerning pairs or proxies
4. **Gas risk management – Value-at-risk (VaR) of a gas portfolio**
   - About the quantification of aggregated gas positions
   - Considerig opposing long/short positions & correlated positions
5. **Gas risk management – Off-setting risk due to opposing exposures**
   - About risk off-setting and netting
   - Covering portfolio integration and cross-margining

Modelling flexibility

6. **Modelling – The real option approach**
   - About production capacity, transport capacity & storage capacity
   - About management decisions, such as the right to dispatch
7. **Modelling – Physical gas assets as real options**
   - Considering gas production capacity, pipelines & gas storages
   - About call options on the spark/time/location spread
8. **Modelling – Complexity: Valuation & hedging of spread options**
   - About structuring, including exotic options
   - Including spread option valuation models, e.g. Margrabe
9. **Modelling – Optimizing the hedges**
   - About hedging strategies, e.g. proxy-hedging
   - Concerning dynamic risk management; Delta-hedging

INTENSITY:
- **170 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
COAL & FREIGHT – *BASIC LEVEL*

About the physical aspects of coal and the coal value chain. Also covering chartering of vessels & freight rates. Including the spot markets & pricing.

1. **Kick–off session**
   - Expectations management
2. **The coal value chain**
   - Production, transport, stock piling & consumption in a nutshell
   - About steam coal and coking coal allocation
3. **Coal reserves & quality – Production & consumption**
   - About the volumes of production and consumption
   - Concerning conventional and unconventional coal reserves
   - Peat, (sub-)bituminous coal, lignite, anthracite & graphite
   - About the content of sulphur, ash, moisture
4. **Shipping – Cargo, vessels & routes**
   - About the competition between coal, metals & soft commodities
   - Concerning panamax, suezmax, capesize vessels and others
   - Covering important shipping routes & transport capacity
5. **Freight – Chartering & incoterms**
   - About trip charters and time charters
   - About terms & conditions of shipping; p.e. free of board (FOB), cost of insurance and freight (CIF) and delivery at ship (DES)
   - Concerning lay-time and demurrage
6. **Pricing of freight – Baltic indices**
   - About the internal and external factors of influence
   - Concerning the Baltic indices, such as the Baltic Dry index (BDI)
   - Covering fleet composition and fleet age
7. **Pricing of coal – Price driving factors & benchmarks**
   - Re fundamental price drivers
   - About production capacity and flooding of mines / shafts
   - Concerning the substitution effect with natural gas
   - Covering sustainability and renewables

INTENSITY:
- **120 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
POWER – *BASIC LEVEL*

About the physical features of electricity, the electricity value chain and the power spot markets, including pricing.

1. **Kick–off session**
   - Expectations management
2. **The power value chain**
   - About electricity generation & consumption
   - Covering transmission in a nutshell
3. **Power generation – Facilities & their characteristics**
   - About power plants, efficiency, carbon intensity & ramping rates
   - Concerning cost of investment & maintenance and marginal cost
4. **Gross processing margin – Spark & dark spread**
   - About the margin of gas-fired and coal-fired power plants
   - Concerning dispatch, tolling cost and negative margins
5. **Transmission – Cables, TSOs & balancing**
   - About electricity transmission & congestion management
   - Concerning the role of TSOs and balancing regimes
6. **Power pricing – The merit order**
   - About supply & demand and the ranking of marginal cost levels
   - Concerning power consumption – Profiles & shaping
7. **Power products**
   - Power-specific products (15min.blocks; baseload; peak products)
   - Concerning the difference between spot and forward markets
8. **Renewables – Impact on pricing**
   - About wind & PV – Imbalances & shifts in the merit order
   - Concerning uncertainty with respect to production forecasts
9. **Dispatch – Allocation of facilities, impact of weather & trading**
   - Re the allocation of generation capacity and/or trading power
   - Concerning decision making processes at dispatch units
10. **Market coupling – Cross-border transport capacity**
    - About market coupling throughout Europe & its consequences
    - The optimal flow of power & trading for delivery the day ahead
11. **Daily auctions – Price curves & matching**
    - About pricing - supply and demand stacks at auctions
    - Concerning bidding strategies for generation capacity

INTENSITY:
- **200 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
POWER – *INTERMEDIATE LEVEL*

About the power forward markets, exchange-traded power futures, forward curves, hedging with term contracts and settlement of futures.

1. **Kick–off session**
   - Expectations management

Forward power markets

2. **Power forward markets**
   - Convering the differences between spot & forward markets
   - About price volatility in spot & forward markets; mean reversion
3. **Power exchanges & brokers**
   - About OTC markets and trading venues for power
   - Concerning market liquidity, notional value and open interest

Power term contracts

4. **Power forwards & futures – The varieties**
   - Concerning the most commonly known contracts
   - The time-to-maturity and delivery moment/period
5. **Power forwards & futures – The application**
   - Covering asset-backed trading as well as proprietary trading
   - About managing power-related exposures
6. **Power forwards curves – Pricing of power forwards & futures**
   - About contango & backwardation, including seasonality
   - Covering the convenience yield

Hedging of power exposures

7. **Hedging power production & consumption capacity**
   - About procurement & sales on a forward basis; contract mgt
   - Covering assuring future cash flows by price fixation
8. **Hedging power transmission capacity**
   - Locking in potential margins on a forward basis
   - Covering location spreads; what these are & how to trade these

Settlement of power term contracts

9. **Settlement of power forwards & futures – Part 1**
   - Including physical delivery & cash settlement
   - Covering nomination & periodic invoicing
10. **Settlement of power forwards & futures – Part 2**
    - Concerning the process of cascading
    - Covering the consequences of it for the power portfolio

INTENSITY:
- **150 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
POWER – *ADVANCED LEVEL*

About power portfolio management, as well as power swaps & power options and their application to hedge power exposures.

1. **Kick–off session**
   - Expectations management

Power portfolio management

2. **Accounting – Book structure & internal transfers**
   - About internal transactions & prices, including premiums.
   - Concerning book structures, cost allocation & P/L responsibility.
   - Covering upstream, midstream & downstream activities.
3. **Customer portfolio**
   - About power supply contracts; including load forecast.
   - Concerning circumstances, e.g. weather, economic situation.
4. **Physical power assets**
   - About make-or-buy decisions & asset-backed trading.
   - Aggregation of rights & obligations (prod., cons. & settlement).

Power derivatives & flexibility

5. **Power swaps – Physical settlement**
   - Concerning solutions for problem solving in the physical world.
   - About basis swaps, or location swaps.
6. **Power swaps – Cash settlement**
   - About financially-settled agreements, including indexation.
   - Concerning fixed-for floating contracts.
7. **Power options – Outright options**
   - About tradable contracts in the OTC markets & on exchange.
   - Pricing of power options; intrinsic value plus time value.
8. **Power options – Application for hedging purposes**
   - About hedging natural short/long positions with call/put options.
   - About power price caps & floors.
9. **Power options – Embedded optionality**
   - About volume flexibility & swing optionality in supply contracts.
   - Covering structuring and structured deals.

INTENSITY:
- **170 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
POWER – *EXPERT LEVEL*

About power risk management and the modeling of flexibility in power portfolios. Covering wind.

1. **Kick–off session**
   - Expectations management

Power risk management

2. **Power risk management – Value-at-risk of a power position**
   - About the a commonly applied method to quantify an exposure
   - Covering the relevant time horizon and confidence level
3. **Power risk management – Risk off-set due to correlation**
   - About statistical data and concepts, and how to apply these
   - Concerning pairs or proxies
4. **Power risk management – Value-at-risk of a power portfolio**
   - About the quantification of aggregated power positions
   - Considerig opposing long/short positions & correlated positions
5. **Power risk management – Off-setting risk (opposing exposures)**
   - About risk off-setting and netting
   - Covering portfolio integration and cross-margining

Modeling flexibility

6. **Modelling – The real option approach**
   - About production capacity & transmission capacity
   - About management decisions, such as the right to dispatch
7. **Modelling – Physical power assets as real options**
   - Considering power generation cap. & power transmission cables
   - About call options on the spark/dark spread or location spread
8. **Modelling – Complexity: Valuation & hedging of spread options**
   - About structuring, including exotic options
   - Including spread option valuation models, e.g. Margrabe
9. **Modelling – Optimizing the hedges**
   - About hedging strategies, e.g. proxy-hedging
   - Concerning dynamic risk management; Delta-hedging
10. **Modelling – Weather elements (precipitation & wind data)**
    - About the impact of renewables on the power markets
    - Hydro: Precipitation, cascading, pump storage
    - Wind: Concerning temperature, location, direction, wind roses, diurnal cycle, pressure gradient force, coriolis force, friction

INTENSITY:
- **170 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
RISK MANAGEMENT – *BASIC LEVEL*

About the identification of risk. Covering various types of risk and related concepts & terminology.

1. **Kick–off session**
   - Expectations management
2. **Risk management - Introduction**
   - The basics of risk management
   - About policies, methodologies and organisation
3. **Risk appetite**
   - About risk tolerance and risk acceptance
   - Concerning risk & reward and the ratio between them
4. **Market risk – Probability distribution curves**
   - About normal, log-normal & other distributions
   - Covering skew, tail risk & one-time events
5. **Price volatility**
   - Covering different types of volatility (e.g. historical & implied)
   - Various ways to calculate volatility & how to interpret outcomes
6. **Counterparty credit risk**
   - About external clearing and internal credit limits
   - Concerning collateralization & margining
7. **Liquidity risk**
   - About trading activity in markets (or the lack of it) & the consequences for market participants
8. **Alpha & Beta**
   - About the capital asset pricing model of Markovich
   - Covering market & company risk; systemic vs. non-systemic risk
9. **Analyzing & Modeling**
   - Concerning the modeling of (energy) asset-related businesses
   - About fundamental, technical, statistical & psychological analysis
10. **Forecasting**
    - About load forecasting & price forecasting
    - Covering production, customer off-take & contract settlement
11. **Correlation & linear regression**
    - About statistical price relationships
    - Concerning correlation – Model risk, incl. normality & linearity

INTENSITY:
- **190 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
RISK MANAGEMENT – *INTERMEDIATE LEVEL*

About the assessment of risk. Quantification of risk by the VaR approach through various methods, and including stress testing.

1. **Kick–off session**
   - Expectations management
2. **Value at Risk (VaR) – The concept**
   - About the quantification of risk; concerning risk metrics
   - Covering probability distribution, time horizon & confidence
3. **Stochastic processes**
   - About probability distribution curves
   - Stochastic processes – Jump, diffusion & jump-diffusion process
4. **VaR – Parametric approach**
   - About the most simple method to quantify risk
   - Concerning the variance/co-variance methodology
   - Examples & calculations, incl. the interpretation of the outcome
5. **VaR – Historical simulation**
   - About a very practical method to quantify risk
   - Including calculations & examples
6. **VaR – Monte Carlo simulation**
   - About the most complex, but flexible method to quantify risk
   - Concerning the creation of assumptions & generating outcomes
   - Including calculations & examples
7. **Stress testing**
   - About what-if, worst case & worst losing streak scenarios
   - About the pros & cons of stress tests
8. **Expected shortfall - CVaR**
   - About the conditional value at risk methodology
   - Concerning the average loss in abnormal market circumstances
   - Including calculations & examples
9. **Implementation of VaR**
   - Back testing
   - Management attention

INTENSITY:
- **170 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
RISK MANAGEMENT – *ADVANCED LEVEL*

About risk control. Covering hedging strategies and methods.

1. **Kick–off session**
   - Expectations management
2. **VaR for multi-commodity portfolios**
   - Portfolio management; VaR for combined positions
   - About the aggregation of VaR at portoflio level
   - Concerning correlation & cross-margining
3. **. VaR for multi-FX portfolios**
   - About FX exposures
   - Concerning risk off-setting and a natural hedge
4. **Model risk**
   - Covering assumptions and their consequences
   - Concerning probability distributions
   - About skew & skewness
5. **Hedging strategies**
   - Concerning different ways of hedging
   - About a perfect hedge, a value hedge & a beta hedge
   - Comparing the outcomes and selecting the best strategy
6. **Proxy-hedging & cross-hedges**
   - About hedging with a liquid product & basis risk
   - Concerning proxy selection and hedge ratios
7. **Delta-hedging**
   - About an objective & dynamic risk management approach
   - Concerning timing & volume – When to hedge? What volume?
8. **Pros & cons of hedging**
   - About the advantages & disadvantages of mitigating market risk
   - Concerning commonly used arguments to hedge or not to hedge

INTENSITY:
- **180 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
RISK MANAGEMENT – *EXPERT LEVEL*

About the risk management organisation. Including methods and limits. Covering risk parameters and their meaning.

1. **Kick–off session**
   - Expectations management
2. **Risk management & the organisation**
   - About enterprise-wide risk management (EWRM)
   - Concerning tools, methods and structures
   - Covering segregation of duties
3. **Limit structures**
   - About the combination of a position limit and a risk limit
   - Concerning liquidity risk management
   - Stochastic processes – Jump, diffusion & jump-diffusion process
4. **Asset & portfolio management**
   - Concerning the client base and contractual obligations & rights
   - About production capacity, the allocation of it & maintenance
5. **Metrics in risk management**
   - Concerning credit value at risk & economic capital
   - About value at risk, cash flow at risk & margin/earnings at risk
6. **Performance management – Risk capital**
   - Concerning capital allocation & expected return
   - About RAROC, RORAC & RARORAC
7. **Performance management – Sharpe ratio**
   - About measuring performance
   - Concerning its definition, the calculation and interpretation
   - Including its pros & cons
8. **Performance management – Treanor ratio**
   - About alpha & beta
   - Concerning its definition, the calculation and interpretation
   - Including its advantages & disadvantages
9. **Credit risk management**
   - About (un)expected loss & credit value at risk
   - Concerning probability of default, loss given default, current exposure, potential future exposure & current exposure

INTENSITY:
- **170 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
BACK OFFICE – *BASIC LEVEL*

About back office ops:
The processing of deals & the transaction cycle.

1. **Kick–off session**
   - Expectations management
2. **Administrative processes**
   - Explaining the back office tasks & responsibilities
   - About invoicing & payments; accounts payable & receivable
   - Concerning nomination, allocation & reconciliation
3. **Straight through processing**
   - The deal life cycle; from deal capture & confirmation to delivery, incl. clearing, margining & collateralisation and settlement
4. **End-of-day processes**
   - About daily (or periodic) reporting; End-of-day/month/year
   - Covering position reports, P/L statements & performance mngt.
5. **Margining**
   - About initial margin, variation margin & maintenance margin
   - Concerning correlation, haircut & cross-margin
   - Covering discounts or reduction on deposits
6. **Netting**
   - Covering the concept of netting
   - About bilateral & multilateral netting
   - Including netting by novation, plus close-out and settlement netting
   - Concerning master agreements & counterparty credit risk
7. **Settlement**
   - Concerning daily settlement & final settlement regarding futures
   - About settlement procedures; settlement date or period
   - Including settlement of commodity options
   - About cash settlement

INTENSITY:
- **180 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
BACK OFFICE – *INTERMEDIATE LEVEL*

About book keeping: accounting principles and book structures.

1. **Kick–off session**
   - Expectations management
2. **Accounting – Mark-to-Market valuation**
   - About valuation of trading positions & fair value
   - Concerning IFRS, IAS and hedge accounting
3. **Accounting – Book structure**
   - About accounts/books; at division, department & personal level
   - Concerning lock-in models, for the hedging of physical assets
4. **Accounting – Internal transfers & transactions**
   - About deals between the business units 'sales' & 'trade'
   - Covering transactions between 'trade' & 'treasury department'
   - Re transfers between 'generation'/'asset management' & 'trade'
5. **Accounting – Internal transfer pricing**
   - About liquidity premium & validity premium
   - Concerning risk premium & profile premium
   - Covering performance management & P/L responsibility
6. **Structuring**
   - Concerning the impossibility to match a hedge with an exposure
   - About summer and winter contracts
   - Covering the hedge of a profiles with base & peak load contracts
7. **Upstream, midstream & downstream**
   - About sub-accounts within the trading business unit
   - Explaining what relates to upstream, midstream & downstream
   - Covering exploration & production, storage, transport and marketing & consumption

INTENSITY:
- **110 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
BACK OFFICE – *ADVANCED LEVEL*

About pricing: indexation, indices and the role of price reporting agencies.

1. **Kick–off session**
   - Expectations management
2. **Data & news providers**
   - About price information & news and well-known providers
   - Including Thomson Reuters, Bloomberg, Montel & others
3. **Price reporting agencies**
   - About accepted benchmarks
   - Covering Platts, ICIS, Argus Media & others
   - Concerning IOSCO principles, ethical codes & policies
4. **Indices – Price indexation**
   - About index calculation & publication
   - Concerning the characteristics of an index
5. **Index – Application of indices**
   - About what indices are used for
   - Covering what an index may indicate
6. **Commodity indices**
   - Concerning well-known commodity indices
   - About S&P GSCI, TR/Jefferies CRB and Rogers Commodity index
7. **Reporting – Internal (financial reporting)**
   - Concerning position reporting, price reporting & valuation
   - About market risk limits, position limits and credit limits
   - Covering mark-to-market valuation & result
   - Including financial ratios, such as balance sheet ratios
8. **Reporting – External (regulatory reporting)**
   - Concerning the consequences of EMIR & REMIT
   - Covering ICT solutions
   - Transaction reporting & reporting of fundamental data

INTENSITY:
- **120 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
BACK OFFICE – *EXPERT LEVEL*

About financial crime: Money laundering, terrorist financing & fraud.

1. **Kick–off session**
   - Expectations management
2. **Financial crime**
   - Covering the fundamentals of financial crime, including global impact and including various types of financial crime
3. **Market abuse**
   - Regarding insider trading & market manipulation
   - Concerning front running and other illegal activities
4. **Fraud by external parties**
   - About identity theft & overtaking identifying information
   - Concerning manipulation of existing identity
5. **Fraud by employees**
   - Concerning various types of fraud by management or staff
   - About theft of checks & removing money from back account
   - Covering indicators to trace fraud; profiling
6. **Tax fraud**
   - About tax fraud
   - Concerning the VAT carousel, or missing trader fraud
   - Including an example from the carbon markets
7. **Money laundering**
   - About money launderers, their aim & their activities
   - Covering placement, layering & integration
   - Including the Financial Action Task Force (FATF)
8. **Financial crime regulation**
   - About regulatory packages relating to financial crime
   - Including anti-corruption & anti-terrorism financing regulation
   - Concerning compliance & low regulatory enforcement areas
9. **Crime management**
   - About crime surveillance
   - Concerning prevention
   - Including ICT solutions; technologies & systems

INTENSITY:
- **100 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
ENERGY PROCUREMENT & SALES – *BASIC LEVEL*

About supply contracts: Flexibility and optionality re volume in agreements.

1. **Kick–off session**
   - Expectations management
2. **Introduction to energy procurement & sales**
   - Covering the difference between the wholesale & retail markets
   - Re business-to-business (B2B) & business-to-consumer (B2C)
3. **Types of energy supply contracts**
   - The characteristics of supply contracts, including force majeure
   - About pricing; fixed & floating, including indexation
   - Covering click contracts
4. **Take-or-pay contracts**
   - About the minimum off-take volume
   - Concerning invoicing & securing future cash flows
5. **Volume flexibility contracts (basics)**
   - About an minimum and maximum off-take
   - Covering the pros & cons for supplier and consumer
6. **Swing contracts (basics)**
   - Regarding fixed total volume but various allocation over periods
   - About the advantages & disadvantages for supplier & consumer
7. **Embedded optionality**
   - About click options, validity options, swing options & more
   - Concerning option pricing & risk premium
   - Covering structuring of contracts
8. **Volume flexibility contracts (advanced)**
   - About the pricing of flex options & flex contracts
   - Regarding the hedging process of a flex contract
   - Covering the concept of Delta-hedging
9. **Swing contracts (advanced)**
   - About the allocation process
   - Covering pricing of swing options & valuation of swing contracts
   - Concerning the hedging process of such a contract

INTENSITY:
- **130 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
ENERGY PROCUREMENT & SALES – *INTERMEDIATE LEVEL*

About supply contracts: Flexibility and optionality re volume in agreements.

1. **Kick–off session**
   - Expectations management
2. **Pricing – Energy products**
   - Price driving factors – Factors of influence (wholesale & retail)
   - About fundamental & non-fundamental price drivers
   - Including taxation & subsidy
3. **Pricing – Forward curves (Basic)**
   - Concerning contango, backwardation & convenience
   - About the storage theory, expectations theory & the cost of carry
4. **Pricing – Forward curves (Advanced)**
   - Regarding seasonality in the commodity business
   - About marginal cost and mean-reversion
5. **Price volatility**
   - About future volatility, expected volatility & historical volatility
   - Regarding market risk & risk management
6. **Premiums in contract price**
   - About the structuring of contracts
   - Concerning profile premium, validity premium, liquidity premium, risk premium & imbalance premium
7. **Hedging with forward & futures**
   - Covering producer & consumer hedges
   - About the hedging of natural short positions with term contracts
   - Re the hedging of natural long positions with forwards/futures
   - Concerning the rolling of a hedge; roll yield

INTENSITY:
- **110 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
ENERGY PROCUREMENT & SALES – *ADVANCED LEVEL*

About supply contracts: Flexibility and optionality re volume in agreements.

1. **Kick–off session**
   - Expectations management

Options

2. **Consumer hedges with options (part I)**
   - About the creation of a price cap & the related premium
   - Concerning the remaining potential to profit from price fall
3. **Consumer hedges with options (part II)**
   - About a vertical call spread
   - About a collar - the set up of a protective construction at no cost
4. **Producer hedges with options (part I)**
   - About the creation of a price floor & the related premium
   - Concerning the remaining potential to profit from price increase
5. **Producer hedges with options (part II)**
   - About a vertical put spread
   - About a collar - the set up of a protective construction at no cost

Swaps

6. **Consumer hedges with swaps (part I)**
   - Explaining what a swap is & how it can be applied by a consumer
   - Regarding on average swaps
   - Covering capped swaps
7. **Consumer hedges with swaps (part II)**
   - Including more types of swaps for consumers
   - About participation swaps
   - About range out swaps
8. **Producer hedges with swaps (part I)**
   - Explaining what a swap is & how it can be applied by a producer
   - Regarding on average swaps
   - Covering capped swaps
9. **Producer hedges with swaps (part II)**
   - Including more types of swaps for producers
   - About participation swaps
   - About range out swaps

INTENSITY:
- **150 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
ENERGY PROCUREMENT & SALES – *EXPERT LEVEL*

Re accounting aspects: Valuation, M-to-M, book structures and transfers.

1. **Kick–off session**
   - Expectations management

Pricing & Valuation

2. **Pricing & valuation – Mark-to-market**
   - Concerning the accounting against actual value/price
   - About settlement price calculations
   - Covering the liquidation value
3. **Pricing & valuation – Price reporting agencies**
   - About accepted benchmarks
   - Covering Platts, ICIS, Argus Media & others
   - Concerning IOSCO principles, ethical codes & policies
4. **Pricing & valuation – Indices & indexation**
   - About index calculation & publication
   - Concerning the characteristics of an index
   - About what indices are used for & what an index may indicate

Accounting

5. **Accounting – Book structures**
   - About accounts/books; at division, department & personal level
   - Concerning lock-in models, for the hedging of physical assets
   - The relationship between the business units Trading & Sales
6. **Accounting – Internal transfers**
   - About deals between the business units 'sales' & 'trade'
   - Covering transactions between 'trade' & 'treasury department'
   - Re transfers between 'generation'/'asset management' & 'trade'
7. **Accounting – Internal transfer pricing**
   - About liquidity premium & validity premium
   - Concerning risk premium & profile premium
   - Covering performance management & P/L responsibility

INTENSITY:
- **120 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
FORWARDS & FUTURES – *BASIC LEVEL*

About the basics of term contracts: Features and contract specifications.

1. **Kick–off session**
   - Expectations management
2. **Fundamentals of forward & futures contracts**
   - Term contracts in a nutshell, including definitions
   - About the working of forwards & futures
3. **Forward & futures contract specifications**
   - About oil, gas, coal, power & carbon contracts
   - Concerning power & gas specifics – delivery period vs. moment
   - Differences between a forward contract and a futures contract
4. **Trading forwards & futures – Speculating & hedging**
   - Learn how to apply forwards & futures for proprietary trading
   - Master the application of term contracts to hedge exposures
   - Concerning basis risk
5. **Forwards & futures position management**
   - About opening and closing positions
   - Covering short selling - What is it? How does it work?
   - About clearing of contracts
   - Including collateralization, margining & leverage
6. **Settlement of forward & futures contracts**
   - About physical delivery and cash settlement
   - Concerning the alternative delivery procedures (ADP)
   - Covering exchange futures for physicals (EFP)
   - Including trading at settlement (TAS)
7. **Cascading of power & gas contracts**
   - About the process of cascading
   - Concerning the consequences for margining
   - The consequence of cascading for a hedge
   - Market liquidity of month, quarter and year contracts

INTENSITY:
- **150 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
FORWARDS & FUTURES – *INTERMEDIATE LEVEL*

About the pricing of term contracts and hedging with these

1. **Kick–off session**
   - Expectations management
2. **Pricing of forwards & futures**
   - The theoretical relationship between spot price & forward price
   - About the storage theory
   - Including the cost of carry; cost of storage, insurance & capital
3. **Forward curves**
   - About contango & backwardation
   - Concerning convenience yield
   - Coverering seasonality & mean reversion
4. **Hedging a consumer exposure**
   - Concerning hedging with a forward or futures contract
   - Re hedging a natural short position with a long forward/future
5. **Hedging a producer exposure**
   - Concerning hedging with a forward or futures contract
   - Re hedging a natural long position with a short forward/future
6. **Rolling over futures positions**
   - Concerning the roll yield in case of re-hedging
   - Covering roll strategies
   - About investments strategies of institutional investors & others
7. **Basis risk & Hedge ratio**
   - About the effectiveness of hedges
   - Including the consequence of an imperfect hedge
   - Concerning the significance of a hedge volume

INTENSITY:
- **120 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
FORWARDS & FUTURES – *ADVANCED LEVEL*

About futures spreads and spread futures. Re basis, time & X-

1. **Kick–off session**
   - Expectations management
2. **Futures spreads**
   - About quality spreads, location spreads & time spreads
   - About cross-commodity spreads
   - Concerning the bid-ask spread
3. **Trading futures spreads – Time spreads**
   - About buying & selling a time spread
   - Concerning virtual storage capacity
4. **Trading futures spreads – Location spreads**
   - About buying & selling a location spread
   - Covering basis trading
   - Concerning virtual transport capacity
5. **Trading futures spreads – Cross-commodity spreads**
   - About buying & selling a cross-commodity spread
   - Concerning spark& dark spreads, as well as crack spreads
   - Concerning virtual power generation capacity & oil refining cap.
6. **Features of spread trading**
   - About liquidity of futures spreads
   - Concerning cross-margining
7. **Statistical arbitrage**
   - Concerning hedge fund strategies
   - About so-called long-short startegies
   - About correlation

INTENSITY:
- **120 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
FORWARDS & FUTURES – *EXPERT LEVEL*

About weather derivatives: Their features & usuage to hedge weather exposures.

1. **Kick–off session**
   - Expectations management
2. **Weather elements & weather exposures**
   - Weather elements in a nutshell; impact on business & economy
   - About weather risk; influences of weather on supply & demand
   - Concerning the impact of weather on energy prices
3. **Fundamentals of weather derivatives**
   - About the underlying values; references
   - Concerning settlement
   - The challenges of weather derivatives & the hedging process
   - Covering basis risk
4. **Temperature – HDD & CDD contracts**
   - About temperature-related derivatives
   - Concerning heating degree days and cooling degree days
   - Covering pay-off
5. **Application of weather derivatives – Examples for utilities**
   - Applying HDD futures & options
   - Incl. a practical example for a utility or gas supplying company
   - Covering market prices, probabilities and securing cash flows
6. **Wind derivatives – Examples for energy companies**
   - About wind-related derivatives
   - Concerning wind and wind power
   - Wind power indices
   - Covering the Carvill hurricane index (CHI)
   - A hedge for oil & gas companies; CHI hedge for rig exposure
7. **Data management & analytics – Wind**
   - About wind data and wind data management
   - Concerning pressure gradient force, coriolis and friction
   - Covering diurnal cycle, wind direction, temperature & location

INTENSITY:
- **110 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
SWAPS – *BASIC LEVEL*

About the basics of swap agreements; in specific interest rate swaps (IRS).

1. **Kick–off session**
   - Expectations management
2. **Treasury management**
   - About funding and financing, including cash flow management
   - Concerning asset & liability management (ALM)
3. **Fundamentals of swap contracts – Application of swaps**
   - Swap agreements in a nutshell, incl. the definition & concept
   - About derivatives in general, and swaps in particular
   - Reduction of finance cost or mitigate interest rate exposure
4. **Swap contract specifications – Settlement of swaps**
   - About the legs, notional amount, reference rate, maturity, coupon frequency
   - Covering settlement of interest rate swaps
   - Differences between IRS and commodity swaps
5. **Interest rates, exposures & forward rate agreements (FRAs)**
   - Learn about interest rate market conventions
   - Master knowledge about forward rate agreements
6. **Types of swaps – Pricing of the legs**
   - About fixed-for-fixed, floating-for-floating, fixed-for-floating
   - Covering indices and references, incl. EONIA, LIBOR & EURIBOR
   - Including the settlement price calculation procedure
7. **Valuation of interest rate swaps (IRS) – Part 1**
   - About the value of swaps at the conclusion of a deal
   - Concerning the value of swaps during their lifetime
8. **Valuation of interest rate swaps (IRS) – Part 2**
   - About overnight indexed swap (OIS)
   - Concerning the clean & dirty value of swaps
9. **Trading of swaps**
   - About the role of broker-dealers in the OTC market
   - Concerning the role of (investment) banks
   - The consequence of trading on own account
   - Market liquidity for swaps

INTENSITY:
- **140 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
SWAPS – *INTERMEDIATE LEVEL*

About energy swaps: Covering various types & their application as hedge.

1. **Kick–off session**
   - Expectations management
2. **Fundamentals of energy swaps – Oil, gas, coal, power & carbon**
   - The basics of energy swaps, including settlement types
   - Mastering energy swaps terminology
3. **Physical energy swaps**
   - Learn about so-called location swaps
   - Master the fundamentals of basis swaps
4. **Financial energy swaps**
   - About cash settlement, reference prices and indexation
   - Covering fixed-for-floating swaps
5. **Cross-commodity swaps**
   - Covering differential swaps, margin swaps, double-up swaps
   - About hedging of an oil refinery, power plant or other asset
6. **Swaps for consumers**
   - About on average swaps
   - Concerning capped swaps
7. **Swaps for producers**
   - About participation swaps and range out swaps
   - Concerning floored swaps
8. **Single payment swaps & prepaid swaps**
   - Concerning various other types of energy swaps
   - Including explanation of these swaps work and can be applied
9. **Energy swaps in depth**
   - Covering the valuation of energy swaps
   - Including the reasons to enter into an energy swap

INTENSITY:
- **120 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
SWAPS – *ADVANCED LEVEL*

About FX markets, FX rates & FX swaps. Covering their specs & application.

1. **Kick–off session**
   - Expectations management
2. **Fundamentals of FX markets**
   - About currency markets & currency rates
   - Mastering factors that impact currency rates
3. **Quotation of FX rates**
   - About ISO/SWIFT codes
   - Concerning country codes, base currency & variable currency
4. **Currency pairs & cross-rates**
   - Learn about direct and indirect quoted rates
   - Master expertise regarding currency combinations & double crossings
5. **FX forwards**
   - Covering forward FX markets
   - Including forward foreign exchange transactions
6. **FX swaps – Fundamentals**
   - About forward/forward, today/tom and tom/next
   - Concerning forward-forward
   - Covering swap points
   - Including terminology, such as cash leg and term leg
7. **FX swaps – Hedging, regulating & rolling**
   - About managing cross-currency cash positions
   - Concerning hedging with FX swaps
   - Including the regulation of liquidity positions
   - Covering the rolling of FX forward positions with FX swaps
8. **FX swaps – More details**
   - Concerning opening & closing positions
   - About cross-currency interest rate swaps
   - About valuation and financial results

INTENSITY:
- **110 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
SWAPS – *EXPERT LEVEL*

About the basics of energy swaptions, as well as credit default swaps.

1. **Kick–off session**
   - Expectations management

Swaptions

2. **Swaptions - Fundamentals**
   The basics of swaptions, including contract specifications
   Mastering swaption-related terminology
   Compound derivative: Payers swaption and receivers swaption
3. **Swaptions - Essentials**
   About swaption styles and extendables
   Concerning fixed tenor and/or fixed end-date
4. **Swaptions – Energy swaptions (oil-indexed gas contracts)**
   Learn about the application of swaptions, to manage exposures
   Including an example concerning a utility's gas portoflio
5. **Swaptions - Valuation**
   Covering the Black model and one-factor-no-arbitrage models
   Concerning the lattice-based approach and trees

CDSs

6. **Credit default swaps - Fundamentals**
   About credit risk and credit risk management
   Covering defaults, auctions and credit insurance tools
   Including the contract specifications and relevant details
7. **Credit default swaps - In-depth**
   About reference entities/obligators
   Concerning jump risk and systemic risk, including regulation
8. **Credit default swaps - Credit events**
   About credit rating agencies, their role and regulation
   Concerning physical delivery and cash settlement
9. **Credit default swaps - Valuation**
   Covering the spread or premium and credit spread rates
   Including the probability model, recovery rate & credit curve

INTENSITY:
- **120 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
OPTIONS – *BASIC LEVEL*

About the basics of options: Their features, contract specs & premium.

1. **Kick–off session**
   - Expectations management
2. **Fundamentals of options**
   - What are options? What types are there? What is a call or put?
   - A right versus an obligation
3. **Contract specifications**
   - About the structure of option contracts
   - Concerning strike price, style, maturity, expiration & settlement
4. **Options trading & position management**
   - About long & short and opening & closing option positions
   - Concerning the holder and the writer of an option
5. **P&L structures, intrinsic value & pay-off**
   - About the value and investment at expiration
   - Concerning the P/L of contracts at maturity
   - How to speculate with options?
   - Margining of option positions
6. **Option premium – Factors of influence**
   - About option pricing; intrinsic value plus time value
   - Concerning market-specific factors & contract specific elements
7. **Moneyness – In- at- or out-of-the-money**
   - Terminology
   - About at-the-money, in-the-money and out-of-the-money
8. **Hedging with options – Strategies**
   - Application of options on physical positions and exposures
   - Hedging strategies with call optiosn and/or put options
   - Hedging (physical) long positions and/or short positions
   - Hedging at no cost – Application of collars
9. **Synthetics – Arbitrage**
   - About the put-call-parity; concerning time value
   - Re sythtically creating a call from a put, or vice versa
   - Risk-free opportunities - Arbitrage strategies

INTENSITY:
- **180 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
OPTIONS – *INTERMEDIATE LEVEL*

About the valuation of options. Covering various models.

1. **Kick–off session**
   - Expectations management
2. **Option pricing & valuation – Implied volatility & skew**
   - Concerning implied volatility; what is it & what does it indicate?
   - About positive & negative skewness and the impact on pricing
   - Covering the volatility curve & volatility smile
3. **Black & scholes model – European style options**
   - Concerning the most well known option valuation model
   - Covering equity options & how it may apply to commodities
   - About log-normal distribution curves
4. **Binomial models – American style options**
   - Concerning a method to price early exercise options
   - About probabilities to certain outcomes & significance of it
   - Explaining the concept of binomial trees & option valuation
5. **Monte Carlo simulation models – Asian style options**
   - About the valuation of exotic options
   - Concerning simulations based on assumptions
   - Generation of a seemingly unlimited number of possibilities
6. **Straddle model – Rules of thumb**
   - About a simplified way to price option
   - Concerning option pricing by heart; quick & dirty
   - Covering a method to roughly indicate the option premium
7. **Option strategies – Combinations of options**
   - About straddle, strangle, butterfly & condor
   - Concerning premium (decay), break-even points & optimum
   - Including profit/loss graphs or pay-off structure
8. **Option strategies – Hedging methodologies (Delta-hedging)**
   - About delta-hedging; what is it and how is it applied?
   - Concerning hedging of an option; about timing & volume
   - Applied to option positions of companies, including examples

INTENSITY:
- **160 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
OPTIONS – *ADVANCED LEVEL*

About option portfolio management: the Greeks and embedded options.

1. **Kick–off session**
   - Expectations management

Hedging

2. **Advanced hedging strategies – For consumers**
   - Concerning European style & Asian style options plus indexation
   - About vertical call spreads & a 3-way collar
   - Covering the application of cash settled option contracts
3. **Advanced hedging strategies – For producers**
   - About European style & Asian style options plus indexation
   - Concerning vertical put spreads & a 3-way collar
   - Covering the application of cash settled option contracts

Greeks

4. **Options risk management – 1st order Greek variables**
   - About Delta, Vega, Theta & Rho
   - Concerning sensitivity analysis with options, including examples
5. **Options risk management – 2nd order Greek variables**
   - Covering Gamma, Charm, Vanna and Vomma
   - Concerning the Greeks in an advanced way, including examples
   - About cross-dependency & inter-relationships between Greeks

Complex structures

6. **Embedded options – Energy supply contracts**
   - About click contracts with price fixation moment(s)
   - Concerning validity period and validity premium
   - Covering risk premiums in the pricing of energy supply contracts
7. **Take or Pay options – Business decisions**
   - About real options, in the sense of business decisions
   - Concerning securing cash flows by the supplier
8. **Flex options – Volume flexibility**
   - About flexibility in the total off-take in an energy supply contract
   - Covering how to handle the related uncertainty by the supplier
   - Including risk management, pricing and Delta-hedging
9. **Swing options – Fluctuating off-take**
   - About contracts with flexibility in when to off-take how much
   - Concerning the allocation of volume over various time periods

INTENSITY:
- **180 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

TRAINING:
OPTIONS – *EXPERT LEVEL*

About exotic & real options: their features and their use for

1. **Kick–off session**
   - Expectations management

Option classifications

2. **Exotic options – Asian, binary & barrier options**
   - About path-dependent options, p.e. Asian style & barrier options
   - Covering binary options, forward start options & cliquet options
   - Concerning pricing and Greeks of exotics
3. **Real options – Applied to physical assets**
   - Covering option spreads & spread options + the way they work
   - Options to expand/contract, initiate/abondon, change in/output
   - About the modeling of physical assets as options
   - Concerning real options and the real option approach
   - Including cross-commodity options

Modeling

4. **Modeling storage capacity – Time spread options**
   - Modeling oil/gas storage facilities
   - Hedging storage capacity by trading time spreads
   - Concerning seasonality and price volatility
5. **Modeling transport capacity – Location spread options**
   - Modeling pipeline, shipping and transmission capacity
   - Hedging transport capacity with location spreads
   - Cross-border trading & cross-region trading
6. **Modeling production capacity – Margin options**
   - Modeling oil refineries and power plants
   - About crack spread options & spark/dark spread options
   - Hedging production capacity with margin spreads

Valuation models

7. **Pricing & hedging spread options – Complex models**
   - Covering the complexity of spread option valuation models
   - About the input variables of spread option valuation models
   - Concerning the output of such models
   - Covering the variety of Greeks and multiple Deltas to hedge

INTENSITY:
- **140 MINUTES** (*VIDEO LESSONS*)
- **1 EXAM**

THE ONLINE LEARNING PLATFORM

ELEARNING

TEXT, VIDEO LESSONS AND ENGAGEMENT COMBINED

INCLUDING EXAMINATION & CERTIFICATION

ELEARNING:
OIL PRICING

OIL

This eLearning package covers the following topics:

- The oil price
  - Price economics
  - Demand & utility vs. Supply & cost
  - Marginal utility vs. marginal cost
  - Fixed costs vs. floating costs
- Price driving factors
  - Demography & economy
  - Reserves & production
  - Technology & economic viability
  - Consumption & processing
  - Storage & storage capacity
  - Transport & transport capacity
  - Social factors & politics
  - Quality
  - FX rates & Inflation
  - Correlation & Diversification
  - Substitution
  - Environmental issues
  - Seasonality + Weather
- The oil forward curve
  - Definition
  - Contango & backwardation
  - The storage model
  - Arbitrage
  - Convenience
- Price-indexation
  - Maintaining benchmarks
  - Cross-commodity
  - Commodity indeices
  - Price reporting agencies
  - Princing panels

A. Examination
B. Certification

❖	Level:	Basic	No prerequisites
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

ELEARNING:
OIL PRICE RISK MANAGEMENT

OIL

This eLearning package covers the following topics:

- Price fluctuations – Price volatility
- Steps to take
- Risk defined
- The subjectivity of decisions
- Risk quantification
- Limit structures
- Risk limit
- The concept of 'value at risk' (VaR)
- The parametric approach
- Individual gas position
- Individual oil position
- A portfolio consisting of 2 positions
- A portfolio consisting of 3 positions
- Value at risk versus P/L
- Quantification of FX exposures
- Stress testing

A. Examination
B. Certification

❖ Level:	Basic	No prerequisites
❖ Language:	Voice & text	English
❖ Including:	Examination	Certification upon passing

ELEARNING:
OIL MARKETS

OIL

This eLearning package covers the following topics:

UNDER DEVELOPMENT

A. Examination
B. Certification

❖ Level:	Basic	No prerequisites
❖ Language:	Voice & text	English
❖ Including:	Examination	Certification upon passing

ELEARNING:
OIL TRADING

OIL

This eLearning package covers the following topics:

UNDER DEVELOPMENT

A. Examination
B. Certification

❖ Level:	Basic	No prerequisites
❖ Language:	Voice & text	English
❖ Including:	Examination	Certification upon passing

ELEARNING:
OIL SHIPPING

OIL

This eLearning package covers the following topics:

- Cargos
  - Dirty cargo
  - Clean cargo
- Vessels
  - Barges & tankers
  - Panamax, Supramax, Handysize, Handymax, VLCC, ULCC
- Routes
  - Well-known land- and sea-marks
- Operations
  - Bill of lading
  - Loading & unloading
  - Lay time & layday
- Chartering
  - Charter types
    - Trip charter
    - Time charter
  - Freight rate
    - Driving factors
    - Baltic indices
    - Incoterms
- Freight trading
  - Ship charterers & brokers
  - Insurance
  - IMO
- Freight derivatives
  - Forward freight agreements (FFAs)
  - Freight futures & options

A. Examination
B. Certification

❖ Level:	Basic	No prerequisites
❖ Language:	Voice & text	English
❖ Including:	Examination	Certification upon passing

ELEARNING:
OIL FUTURES

OIL

This eLearning package covers the following topics:

- Introduction
  - Definition
  - Option contract & contract specifications
- Position management
  - Opening & closing a position
  - Long vs. short: Obligation to make/take delivery & obligation to take/make payment
- Application
  - Speculation vs. hedging
- Pricing & trading
  - Trading at settlement
  - Trading at marker
- Clearing
  - Central counterparty (clearing house
  - Clearing members
  - Margining
    - Initial margin
    - Variation margin
- Settlement
  - Physical delivery
    - Delivery versus payment
    - Seller's choice
    - Cheapest to deliver
    - Alternative delivery procedure
  - Cash settlement
    - Financial effectation
- Exchange of futures for physicals
  - EFP
  - Exchange of futures for swaps
    - EFS

A. Examination
B. Certification

❖	Level:	Basic	No prerequisites
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

ELEARNING:
OIL OPTIONS

OIL

This eLearning package covers the following topics:

- Introduction
  - Definition
  - Option contract & contract specifications
- Types of options
  - Call options & Price cap
  - Put options & Price floor
- Oil option pricing & valuation
  - Premium
    - Price driving factors
      - Contract-specific factors
      - Market-specific factors
  - Option valuation models
- Position management
  - Rights and (potential) obligations
  - Exercise & assignment
  - Settlement
- Hedging oil price risk with oil options
  - Hedging an exposure of an oil producer with a put option
  - Hedging an exposure of an oil consumer with a call option
    - Selecting strike price and maturity date
- Vanilla oil options vs. Exotic oil options
  - Complexity level
  - Option (exercise) style: European, American, Asian & more
  - Types of exotics
    - Average rate options, Barrier options, Quanto options, Exchange options, Basket options, Cross options, Rainbow options

A. Examination
B. Certification

❖	Level:	Basic	No prerequisites
❖	Language:	Voice & text	English
❖	Including:	Examination	Certification upon passing

ELEARNING:
OIL SWAPS

OIL

This eLearning package covers the following topics:

- Introduction
  - Swap contract
  - Definition
- Types of swaps
  - Physical oil swaps
    - Location swap
    - Crack spread swap – Crude versus product
  - Financial oil swaps
    - Cash settled swap
- Specific swaps
  - Differential swap
  - Margin swap
  - Participation swap
    - Producer participation swap
  - Double-up swap
- Swap pricing & valuation

A. Examination
B. Certification

❖ Level:	Basic	No prerequisites
❖ Language:	Voice & text	English
❖ Including:	Examination	Certification upon passing

ENTRIMA

THE ONLINE LEARNING ENVIRONMENT

CLIMATE CHANGE & ENERGY TRANSITION

KNOWLEDGE CENTRE

LEARNINGS, VIDEOS, DOCUMENTS, RESEARCH & OTHER STUDY MATERIALS

INCLUDING CLIMATE POLICY, DECARBONISATION, NET-ZERO, RENEWABLES, BIO-ENERGY, HYDROGEN & CCUS

FIELD OF EXPERTISE:
ENVIRONMENTAL CHALLENGES

FUNDAMENTALS

Our environment is impacted by many factors, including human activity. This could cause an imbalances, pollution, starving animals, climate change and many more. This section helps the learner to identify the main environmental challenges.

This section covers the following topics:

1.VIDEO:	Introduction
2.VIDEO:	Pollution Chokes African Lives & Livelihoods
3.PDF file:	UN – Environment Assembly – Towards a Pollution-free Planet
4. VIDEO:	The Problem of Plastic Pollution in the Rio Motagua – Guatemala Rivers
5. PDF file:	WWF – Living Blue Planet Report - 2015
6. VIDEO:	Deforestation
7. PDF file:	WWF – Deforestation Fronts – Drivers and Responses in a Changing World
8. VIDEO:	National Geographic - Air Pollution – 101
9. PDF file:	World Bank – Global Gas Flaring – Tracker Report – 2022
10. WEBSITE:	IEA – Gas Flaring
11. PDF file:	IEA – Global Methane Tracker – Documentation
12. VIDEO:	Oil Spill – Exxon Valdez
13. VIDEO:	Bilge Dumping
14. VIDEO:	NationalGeographic_Causes&EffectsOfClimateChange

❖ Level:	Basic	No prerequisites
❖ Language:	Voice & text	English

FIELD OF EXPERTISE:
SUSTAINABLE DEVELOPMENT GOALS

FUNDAMENTALS

Our environment is impacted by many factors, including human activity. This could cause an imbalances, pollution, starving animals, climate change and many more. This section helps the learner to identify the main environmental challenges.

This section covers the following topics:

1.VIDEO:	Introduction – Sustainable Development Goals
2.VIDEO:	World Bank – Introducing the 2023 World Bank Atlas of SDGs
3. PDF file:	World Bank Group – 2030 Agenda – 2019
4.VIDEO:	UN SDGs: What They Are & Why They're Important
5.VIDEO:	United Nations – Do You Know All 17 SDGs?
6.WEBSITE:	United Nations
7. PDF file:	United Nations – Global Sustainable Development Report – 2023

❖ Level:	Basic	No prerequisites
❖ Language:	Voice & text	English

FIELD OF EXPERTISE:
MEASURES

FUNDAMENTALS

Our environment is impacted by many factors, including human activity. This could cause an imbalances, pollution, starving animals, climate change and many more. This section helps the learner to identify the main environmental challenges.

This section covers the following topics:

1. VIDEO: Introduction
2. VIDEO: 50 Years Ago This Was a Wasteland
3. VIDEO: The Global Movement To Restore Natures Biodiversity
4. VIDEO: What is Ecosystem Restoration?
5. PDF file: United Nations The Sustainable Development Goals Report – 2023
6. WEBSITE: Our World in Data
7. VIDEO: Oil-eating Bacteria Could be a Solution to Spill Cleanups
8. VIDEO: How System 03 Cleans the Great Pacific Garbage Patch
9. PDF file: WWF – World Wildlife Foundation – Smart Investments in Ocean Health
10. VIDEO: Urban Nature-based Solutions
11. VIDEO: How Singapore Fixes its Big Trash Problem
12. PDF file: ADNOC – Advancing towards Net Zero – Delivering Progress – 2023
13. VIDEO: Japan Green Actions for Achieving Carbon Neutrality
14. VIDEO: How China Plans to Win the Future of Energy

❖	Level:	Basic	No prerequisites
❖	Language:	Voice & text	English

FIELD OF EXPERTISE:
CLIMATE CHANGE

FUNDAMENTALS

Our environment is impacted by many factors, including human activity. This could cause an imbalances, pollution, starving animals, climate change and many more. This section helps the learner to identify the main environmental challenges.

This section covers the following topics:

1. VIDEO: Introduction
2. VIDEO: Causes & Effects of Climate Change
3. WEBSITE: IPCC – International Panel on Climate Change
4. WEBSITE: United Nations – What is Climate Change
5. PDF file: WWF – IPCC – Timeline
6. VIDEO: Al Jazeera – What is Climate Change
7. WEBSITE: World Bank – What is Climate Change
8. PDF file: IPCC – Mitigation of Climate Change

- Level: Basic No prerequisites
- Language: Voice & text English

FIELD OF EXPERTISE:
CLIMATE POLICY & GOVERNANCE

FUNDAMENTALS

Our environment is impacted by many factors, including human activity. This could cause an imbalances, pollution, starving animals, climate change and many more. This section helps the learner to identify the main environmental challenges.

This section covers the following topics:

1. VIDEO: Introduction
2. VIDEO: What are Scope-1-2-3 Emissions?
3. VIDEO: IPCC – Climate Change – Mitigation of Climate Change
4. VIDEO: IPCC – Climate Change – Impacts Adaptation & Vulnerability
5. PDF file: WEF – Winning the Race to Net Zero
6. PDF file: OECD – Accounting for Mitigation Targets in NDCs – Under the Paris Agreement
7. VIDEO: The Scope 3 Challenge
8. VIDEO: The EU Climate Deal
9. VIDEO: The European Union Green Deal Explained
10. VIDEO: Article-6 – News – COP-26
11. WEBSITE: What You Need To Know About Article 6 of the Paris Agreement
12. PDF file: IETA – Article_6 – Implementation Paper
13. PDF file: Paris Ageement – Article-6 – ITMO Overview
14. PDF file: The Nature Conservancy – Article-6 Explainer
15. WEBSITE: Article 6.4 Mechnism
16. PDF file: OECD & IEA – The Birth of an ITMO – Authorisation under Article-6
17. PDF file: The White House – Inflation Reduction Act Guidebook
18. WEBSITE: IMF – Energy Transitions

❖ Level:	Basic	No prerequisites
❖ Language:	Voice & text	English

FIELD OF EXPERTISE:
ELECTRIFICATION

ESSENTIALS

Our environment is impacted by many factors, including human activity. This could cause an imbalances, pollution, starving animals, climate change and many more. This section helps the learner to identify the main environmental challenges.

This section covers the following topics:

1. VIDEO: Introduction
2. VIDEO: How to Decarbonize The Grid and Electrify Everything
3. PDF file: Energy Transitions Commission – Making Electrification Possible
4. WEBSITE: IEA – Electrification
5. PDF file: EEA-ACER – Flexibility Solutions to Support Decarbonised Secure EU Electricity System

❖ Level:	Basic	No prerequisites
❖ Language:	Voice & text	English

FIELD OF EXPERTISE:
RENEWABLE POWER

ESSENTIALS

Our environment is impacted by many factors, including human activity. This could cause an imbalances, pollution, starving animals, climate change and many more. This section helps the learner to identify the main environmental challenges.

This section covers the following topics:

1. VIDEO:	Introduction
2. WEBSITE:	IEA – Renewables
3. WEBSITE:	United Nations – What is Renewable Energy
4. PDF file:	IRENA – Geothermal Power
5. PDF file:	IRENA – Tidal Energy
6. VIDEO:	Why You Haven't Seen These Wind Turbines Around (Yet)
7. PDF file:	TNO – Dutch Offshore Wind Guide
8. PDF file:	Minister of Natural Resources Canada – Wind
9. WEBSITE:	IEA – Solar PV
10. VIDEO:	Solar Powers Chickens in Jamaica
11. PDF file:	IEA -Special Report on Solar PV Global Supply Chains
12. PDF file:	United Nations -Small Hydro Power Development Report
13. PDF file:	WWF – Hydro Collier
14. VIDEO:	China Plan for the Worlds Riskiest Mega Dam High in the Himalayas
15. VIDEO:	Why Environmentalists Are Fighting Renewable Energy Development
16. PDF file:	WWF – Position Paper – Offshore Renewable Energy & Nature

❖ Level:	Basic	No prerequisites
❖ Language:	Voice & text	English

FIELD OF EXPERTISE:
NUCLEAR POWER

ESSENTIALS

Our environment is impacted by many factors, including human activity. This could cause an imbalances, pollution, starving animals, climate change and many more. This section helps the learner to identify the main environmental challenges.

This section covers the following topics:

1. VIDEO: Introduction
2. VIDEO: Nuclear Power - The Clean-Green Energy Dream
3. WEBSITE: World Nuclear Association
4. PDF file: US Department of Energy – Ultimate Fast Facts Guide to Nuclear Energy
5. WEBSITE: National Geographic
6. VIDEO: Leakage of Radioactive Water
7. PDF file: IAEA – The Fukushima Event
8. PDF file: IAEA – Atomic Power Review
9. WEBSITE: Greenpeace – Why Nuclear Power is Not the Way to a Green & Peaceful World

❖ Level:	Basic	No prerequisites
❖ Language:	Voice & text	English

FIELD OF EXPERTISE:
HEAT

ESSENTIALS

Our environment is impacted by many factors, including human activity. This could cause an imbalances, pollution, starving animals, climate change and many more. This section helps the learner to identify the main environmental challenges.

This section covers the following topics:

1. VIDEO: Introduction
2. VIDEO: What is Combined Heat & Power (CHP)?
3. WEBSITE: EC Europa EU – Integrating Heat Pumps in Existing Residential Buildings
4. PDF file: US Department of Energy – Waste Heat to Power – Fact Sheet
5. PDF file: US Environment Protection Agency – Waste Heat to Power Systems
6. VIDEO: Is Geothermal Heating & Cooling Worth the Cost – Heat Pumps Explained
7. WEBSITE: IEA – Heating
8. PDF file: Sustainable Energy Authority of Ireland – Heating & Cooling in Ireland Today
9. PDF file: Heating & Cooling Potential Analysis- In The Netherlands

❖ Level:	Basic	No prerequisites
❖ Language:	Voice & text	English

FIELD OF EXPERTISE:
FOSSIL FUELS

ESSENTIALS

Our environment is impacted by many factors, including human activity. This could cause an imbalances, pollution, starving animals, climate change and many more. This section helps the learner to identify the main environmental challenges.

This section covers the following topics:

1. VIDEO: Introduction
2. VIDEO: Why Natural Gas is a Critical Part of the Energy Transition
3. PDF file: OPEC – World Oil Outlook 2045
4. PDF file: ADNOC – Advancing toward Net Zero
5. PDF file: Carbon-neutral LNG in Japan – Drivers & Perspectives
6. WEBSITE: IEA – The Role of Gas in Today's Energy Transitions
7. VIDEO: How to Realistically Decarbonize the Oil & Gas Industry
8. PDF file: GIE – Decarbonising in Europe
9. VIDEO: Decarbonising Steel Making with New Technologies
10. PDF file: GIE – Methane Emissions Reduction
11. PDF file: GIE – Towards the Paris Agreement
12. VIDEO: Fossil Fuels – The Greenest Energy

- Level: Basic No prerequisites
- Language: Voice & text English

FIELD OF EXPERTISE:
LNG

ESSENTIALS

Our environment is impacted by many factors, including human activity. This could cause an imbalances, pollution, starving animals, climate change and many more. This section helps the learner to identify the main environmental challenges.

This section covers the following topics:

1. VIDEO: Introduction
2. PDF file: IGU – Global Vision of Gas – Fuelling a Cleaner Future with LNG
3. VIDEO: IGU-tube – IGU 2023 World LNG Report Summary
4. PDF file: IGU – World LNG Report 2023
5. VIDEO: FT – American LNG Exports are Surging on the Back of European Demand
6. PDF file: IGU – Natural Gas in the Transition to Low Carbon Economies – Latin America
7. PDF file: IGU – Gas for Africa
8. PDF file: EBA-GIE – Bio-LNG in Transport making Climate Neutrality a Reality
9. PDF file: EBA-GIE – Bio-LNG in Transport making Climate Neutrality a Reality – Infographic
10. VIDEO: How LNG Carriers Work – Design Types, Loading & Discharge
11. PDF file: EBA-GIE – Fuelling Clean Mobilty with Bio-Energy – Bio-LNG Report

❖ Level:	Basic	No prerequisites
❖ Language:	Voice & text	English

FIELD OF EXPERTISE:
BIOGAS

ESSENTIALS

Our environment is impacted by many factors, including human activity. This could cause an imbalances, pollution, starving animals, climate change and many more. This section helps the learner to identify the main environmental challenges.

This section covers the following topics:

1. VIDEO: Introduction
2. PDF file: European Biogas Association – Biogas Basics
3. VIDEO: CNBC – How Gasification Turns Waste into Energy
4. VIDEO: How Does a Biogas Plant Work
5. VIDEO: How Does a Biogas Plant Work
6. PDF file: IEA – Outlook for Biogas & Biomethane
7. WEBSITE: IEA – How Biogas can Support Intermittent Renewable Electricity
8. PDF file: Biomethane in the EU & the Netherlands
9. VIDEO: Conserve Energy Future – Various Advantages & Disadvantages of Biogas

❖ Level:	Basic	No prerequisites
❖ Language:	Voice & text	English

FIELD OF EXPERTISE:
BIOFUELS

ESSENTIALS

Our environment is impacted by many factors, including human activity. This could cause an imbalances, pollution, starving animals, climate change and many more. This section helps the learner to identify the main environmental challenges.

This section covers the following topics:

1. VIDEO: Introduction
2. VIDEO: Biofuels 101
3. PDF file: UN – Unlocking the Bioethanol Economy
4. WEBSITE: European Commission – Biofuels
5. VIDEO: Biofuel Instead of Coal and Oil – How Promising are these Renewable Resources
6. WEBSITE: Biofuels Basics
7. PDF file: IEA – Biofuels in Emerging Markets
8. VIDEO: The Problems With Biofuels

❖ Level:	Basic	No prerequisites
❖ Language:	Voice & text	English

FIELD OF EXPERTISE:
BIOMASS

ESSENTIALS

Our environment is impacted by many factors, including human activity. This could cause an imbalances, pollution, starving animals, climate change and many more. This section helps the learner to identify the main environmental challenges.

This section covers the following topics:

1. VIDEO: Introduction
2. VIDEO: Renewable Energy 101 – How Does Biomass Energy Work?
3. WEBSITE: EIA – Biomass Explained
4. PDF file: Bioenergy – Biomass, Bioethanol & Biodiesel
5. VIDEO: Reaching Net Zero – Does BECCS Work?
6. WEBSITE: IEA – Biomass – BECCS
7. PDF file: Global CCS Institute – BECCS – Perspective
8. PDF file: IRENA-ETSAP - Biomass for Heat & Power

❖ Level:	Basic	No prerequisites
❖ Language:	Voice & text	English

FIELD OF EXPERTISE:
HYDROGEN

ESSENTIALS

Our environment is impacted by many factors, including human activity. This could cause an imbalances, pollution, starving animals, climate change and many more. This section helps the learner to identify the main environmental challenges.

This section covers the following topics:

1. VIDEO: Introduction
2. VIDEO: How Green Hydrogen Could End the Fossil Fuel Era
4. VIDEO: Hydrogen – Fuel of the Future
5. PDF file: Hydrogen – Long-duration Energy Storage
6. WEBSITE: IEA – Hydrogen
7. VIDEO: How Cheap Hydrogen Could Become the Next Clean Fuel
8. PDF file: IEA – Global Hydrogen Review
9. PDF file: ENTSOG – How to Transport & Store Hydrogen
10. PDF file: How The European Gas Infrastructure Can Help Deliver The Hydrogen Strategy

- Level: Basic No prerequisites
- Language: Voice & text English

FIELD OF EXPERTISE:
ENERGY SAVINGS & EFFICIENCY

PRACTICALITIES

Our environment is impacted by many factors, including human activity. This could cause an imbalances, pollution, starving animals, climate change and many more. This section helps the learner to identify the main environmental challenges.

This section covers the following topics:

1. VIDEO: Introduction
2. VIDEO: Energy Efficiency 101
3. VIDEO: Energy Conservation vs. Energy Efficiency
4. PDF file: IEA – Energy Efficiency
5. VIDEO: What is Energy Efficiency
6. PDF file: UN IDC – Energy Efficiency Technologies & Benefits
7. PDF file: US Department of Energy – Energy Savers
8. WEBSITE: IEA – Energy Savings
9. PDF file: European Commission – REPowerEU – Energy Savings
10. WEBSITE: IEA – Energy Efficiency

- Level: Basic — No prerequisites
- Language: Voice & text — English

FIELD OF EXPERTISE:
TECHNOLOGY & OTHER SOLUTIONS

PRACTICALITIES

Our environment is impacted by many factors, including human activity. This could cause an imbalances, pollution, starving animals, climate change and many more. This section helps the learner to identify the main environmental challenges.

This section covers the following topics:

1. VIDEO: Introduction
2. VIDEO: A New Way to Remove CO_2 from the Atmosphere
3. VIDEO: How to Green the World Deserts and Reverse Climate Change
4. PDF file: TNO – Decarbonisation for the Dutch Biofuels Industry
5. VIDEO: Why Carbon Credits are the Next Opportunity for Farmers
6. VIDEO: In-pipe Energy – The Hydro Power Nobody is Talking About
7. WEBSITE: WEF – 3 Ways Technology is Helping the World Adapt to Climate Change
8. PDF file: Technology & UNFCCC
9. WEBSITE: European Space Agency – Space Technology Helps Mitigate Climate Change

❖ Level:	Basic	No prerequisites
❖ Language:	Voice & text	English

FIELD OF EXPERTISE:
CARBON CAPTURE, UTILISATION & STORAGE *(CCUS)* PRACTICALITIES

Our environment is impacted by many factors, including human activity. This could cause an imbalances, pollution, starving animals, climate change and many more. This section helps the learner to identify the main environmental challenges.

This section covers the following topics:

1. VIDEO: Introduction
2. VIDEO: How it Works – Carbon Capture & Storage
3. VIDEO: CCUS – Understanding Why
4. VIDEO: Carbon Capture – The Hopes Challenges & Controversies
5. PDF file: The Oxford Institute for Energy Studies – CCUS
6. WEBSITE: IEA – Carbon Capture, Utilisation & Storage
7. PDF file: Energy Transitions Commission – CCUS – Vital but Limited
8. WEBSITE: LSE – What is CCUS and What Role can it Play in Tackling Climate Change?

- Level: Basic No prerequisites
- Language: Voice & text English

FIELD OF EXPERTISE:
COMPLIANCE MARKETS – *ETSs & ALLOWANCES* PRACTICALITIES

Our environment is impacted by many factors, including human activity. This could cause an imbalances, pollution, starving animals, climate change and many more. This section helps the learner to identify the main environmental challenges.

This section covers the following topics:

1. VIDEO: Introduction
2. VIDEO: What is Carbon Trading?
3. PDF file: IEA – Implementing Effective Emissions Trading Systems
4. VIDEO: How Does the Emissions Trading Scheme Work
5. WEBSITE: UN Emissions Trading
6. VIDEO: Emissions Trading System
7. VIDEO: The EU Emissions Trading System Explained
8. WEBSITE: EU-ETS
9. VIDEO: The New Zealand Emissions Trading System Explained
10. VIDEO: The Emissions Trading System – New Zealand Market
11. VIDEO: China's New Carbon Emissions Trading Scheme Explained
12. WEBSITE: EU-ETS – Union Registry

- Level: Basic No prerequisites
- Language: Voice & text English

FIELD OF EXPERTISE:

VOLUNTARY CARBON MARKETS – *CREDITS & OFFSETS* PRACTICALITIES

Our environment is impacted by many factors, including human activity. This could cause an imbalances, pollution, starving animals, climate change and many more. This section helps the learner to identify the main environmental challenges.

This section covers the following topics:

1. VIDEO: Introduction
2. VIDEO: Carbon Credits Explained
3. VIDEO: Why Tracking Carbon Emissions is Suddenly a Billion Dollar Opportunity
4. PDF file: UNFCCC – Clean Development Mechanism
5. WEBSITE: UN – Carbon Offsets Platform
6. VIDEO: What You Need to Know about Carbon Removal
7. PDF file: WWF – Making Sense of the Voluntary Carbon Market – Comparing Standards
8. VIDEO: How Do Carbon Markets Work
9. PDF file: VCS – Verified Carbon Standard
10. PDF file: South Pole – VCM-Report
11. PDF file: McKinsey – Putting Carbon Markets to Work on the Path to Net Zero
12. VIDEO: These Trees are Not What they Seem
13. PDF file: IETA – The Evolving Voluntary Carbon Market
14. PDF file: ISDA – Legal Implications of Voluntary Carbon Credits
15. PDF file: Climate Focus - Unlocking Nature-based Solutions – USA Technical Report
16. VIDEO: Do Carbon Offsets Even Work – All Hail the Planet
17. PDF file: How Hot Air Forrest Credits are Used to Avoid Taxes in Colombia
18. VIDEO: What is the Voluntary Carbon Market
19. VIDEO: The Carbon Offset Problem
20. VIDEO: Understanding Carbon Farming
21. WEBSITE: UNFCCC – REDD+ Platform
22. VIDEO: Bogus Carbon Offsets Drive Carbon Neutral Claims
23. WEBSITE: The World Bank – What You Need to Know About ERPAs
24. WEBSITE: S&P Global – VCM – How they Work? How they are Priced? Who is Involved?
25. PDF file: VERRA Statement – How to Deal with Media Attention?
26. VIDEO: Bloomberg – Energy Giants Sell Carbon Neutral Natural Gas that Does Not Exist

❖ Level:	Basic	No prerequisites
❖ Language:	Voice & text	English

FIELD OF EXPERTISE:
ENERGY ATTRIBUTE CERTIFICATES

PRACTICALITIES

Our environment is impacted by many factors, including human activity. This could cause an imbalances, pollution, starving animals, climate change and many more. This section helps the learner to identify the main environmental challenges.

This section covers the following topics:

1. VIDEO: Introduction
2. VIDEO: Guarantees Of Origin
3. VIDEO: What is a Renewable Energy Certificate (REC)
4. VIDEO: RECs – Making Green Power Possible
5. PDF file: UN Development Programme – Introduction of GOs in Ukraine
6. PDF file: CertifHy- 1st EU-wide Guarantee of Origin for Premium Hydrogen
7. WEBSITE: IEA – Renewable Energy Guarantees of Origin
8. WEBSITE: S&P Global - European Guarantees of Origin Assessment

❖ Level:	Basic	No prerequisites
❖ Language:	Voice & text	English

FIELD OF EXPERTISE:
DEVELOPMENTS IN STORAGE

PRACTICALITIES

Our environment is impacted by many factors, including human activity. This could cause an imbalances, pollution, starving animals, climate change and many more. This section helps the learner to identify the main environmental challenges.

This section covers the following topics:

1. VIDEO: Introduction
2. VIDEO: How to Fix Clean Energy Storage Problem
3. WEBSITE: IRENA – Storage
4. PDF file: Asian Development Bank – Handbook Battery Energy Storage System
5. VIDEO: How Tesla is Quietly Expanding its Energy Storage Business
6. VIDEO: The Truth about Pumped Storage
7. WEBSITE: IEA – Grid-scale Storage
8. VIDEO: The Future of Energy Storage Beyond Lithium Ion
9. PDF file: US Department of Commerce – Understanding Energy Storage
10. PDF file: AGSI – Gas Storage

❖ Level:	Basic	No prerequisites
❖ Language:	Voice & text	English

FIELD OF EXPERTISE:
DEVELOPMENTS IN TRANSPORT

PRACTICALITIES

Our environment is impacted by many factors, including human activity. This could cause an imbalances, pollution, starving animals, climate change and many more. This section helps the learner to identify the main environmental challenges.

This section covers the following topics:

1. VIDEO: Introduction
2. VIDEO: The Big Business of Energy for the EV Industry
3. VIDEO: The True Cost of Lithium Mining
4. VIDEO: The World Needs Supergrids – But There is a Problem
5. PDF file: EU-ETS – Transport – Maritime & Aviation
6. WEBSITE: Maritime Transport in EU Emissions Trading System – EU-ETS
7. PDF file: EU-ETS – Shipping – Martime Allowances
8. WEBSITE: Reducing Emissions from the Shipping Sector – EU-ETS
9. VIDEO: The Engineering Marvel Called Panama Canal

❖ Level:	Basic	No prerequisites
❖ Language:	Voice & text	English

FIELD OF EXPERTISE:
FINANCE

PRACTICALITIES

Our environment is impacted by many factors, including human activity. This could cause an imbalances, pollution, starving animals, climate change and many more. This section helps the learner to identify the main environmental challenges.

This section covers the following topics:

1. VIDEO: Introduction
2. WEBSITE: Green Climate Fund
3. PDF file: WWF – International Climate Finance Letter – President of the United States
4. PDF file: WWF – Report – 2021
5. VIDEO: The OPEC Fund & Renewable Energy
6. VIDEO: How Financial Markets Play a Role in the Clean Energy Transition
7. PDF file: UN – Theme Report on Energy Transition

- Level: Basic — No prerequisites
- Language: Voice & text — English

FIELD OF EXPERTISE:
AFFORDABILITY, RELIABILITY & SECURITY OF SUPPLY PRACTICALITIES

Our environment is impacted by many factors, including human activity. This could cause an imbalances, pollution, starving animals, climate change and many more. This section helps the learner to identify the main environmental challenges.

This section covers the following topics:

1. VIDEO: Introduction
2. VIDEO: The Energy Transition Explained
3. WEBSITE: The Energy Trilemma – Finding the Right Balance
4. VIDEO: How China Plans to Win the Future of Energy
5. PDF file: World Energy Council - World Energy Trilemma Index
6. WEBSITE: US-UK Energy Security & Affordability Partnership
7. VIDEO: Virtual Power Plant Will Balance Energy Security Affordability & Sustainability
8. PDF file: Asian Development Bank – Solving the Energy Trilemma Through Innovation

- Level: Basic No prerequisites
- Language: Voice & text English

FIELD OF EXPERTISE:
ETHICS & DISCUSSIONS

PRACTICALITIES

Our environment is impacted by many factors, including human activity. This could cause an imbalances, pollution, starving animals, climate change and many more. This section helps the learner to identify the main environmental challenges.

This section covers the following topics:

1. VIDEO: Introduction
2. VIDEO: The Blind Spots of the Green Energy Transition
3. WEBSITE: Towards Energy Care Ethics – Exploring Ethical Implications of Relationality
4. PDF file: IEA – The Role of Critical Minerals in Clean Energy Transitions
5. VIDEO: Hard Truths About Energy Transition
6. VIDEO: Can 100% Renewable Energy Power the World
7. WEBSITE: Ethics, Energy Transition & Ecological Citizinship
8. PDF file: Research Gate – Ethics, Energy Transition & Ecological Citizenship

- Level: Basic — No prerequisites
- Language: Voice & text — English

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