

ADVANCED DERIVATIVES & STRUCTURED PRODUCTS ANALYSIS

“Strategies for Pricing, Risk Management, and Structuring of Complex Financial Instruments”

Schedule

Venue (InHouse)	Fees
At Your Organization Premises	Ask For The Quotation

► **Available delivery methods:** In-House Training

Introduction

In today’s volatile financial environment, derivatives and structured products play a pivotal role in risk transfer, yield enhancement, and portfolio optimization. However, the complexity of these instruments demands deep analytical insight and strategic understanding to navigate their pricing, risks, and regulatory implications.

This advanced course equips finance professionals with comprehensive knowledge and hands-on tools to analyze, price, structure, and manage a wide variety of derivatives and structured products. Covering everything from options and swaps to CDOs and structured notes, this course emphasizes real-world applications and quantitative methods, with a focus on risk management and regulatory considerations.

Objectives

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

- Understand and apply valuation techniques for derivatives including options, swaps, and exotic instruments
- Design structured products tailored to client objectives and market views
- Analyze embedded risks and payoff structures using quantitative models
- Employ derivatives in hedging, arbitrage, and yield enhancement strategies
- Comply with regulatory requirements under EMIR, MiFID II, and Basel III

Why Attend

- Gain a practical and in-depth understanding of complex derivatives
- Learn to structure tailor-made products for investors and institutions
- Master quantitative valuation models including Black-Scholes, binomial trees, and Monte Carlo simulation
- Explore the risk-return profiles and economic rationales behind structured instruments
- Stay up-to-date with global derivatives regulations and risk reporting

Target Audience

This program is designed for:

- Financial engineers and structurers
- Risk managers and quantitative analysts
- Investment bankers and wealth managers
- Treasury professionals and derivatives traders
- Compliance officers and portfolio strategists

Individual Benefits

Key competencies that will be developed include:

- Technical expertise in derivative pricing and modeling
- Structuring skills for creating customized investment solutions
- Enhanced risk assessment and mitigation abilities
- Proficiency in payoff analysis and scenario simulation
- Regulatory knowledge for derivatives compliance

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Stronger derivatives portfolio oversight and control
- Improved structuring and risk pricing of custom products
- Reduced model risk and valuation discrepancies
- Enhanced client advisory with data-driven solutions
- Alignment with global best practices and regulatory compliance

Instructional Methodology

The course follows a blended learning approach combining theory with practice:

- Strategy Briefings – Conceptual frameworks for derivatives pricing and structuring
- Case Studies – Analysis of actual structured deals and derivative strategies
- Workshops – Hands-on pricing and structuring exercises using Excel and modeling tools
- Peer Exchange – Sharing of structuring challenges and derivative applications
- Tools – Templates, valuation spreadsheets, and risk management models

MAWA EVENTS

Address: No. 857, Block A2, Leisure Commerce Square - No 9., 46150 Petaling Jaya, Selangor, Malaysia

Phone: +601116373203 | **Email:** info@mawaevents.net



Course Outline

DETAILED 5-DAY COURSE OUTLINE (Customizable)

Training Hours: 7:30 AM – 3:30 PM **Daily Format:** 3–4 Learning Modules | Coffee breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 – 02:00

Day 1: Derivatives Foundations and Market Landscape

- Module 1: Derivatives Market Overview (07:30 – 09:30)
 - Types of derivatives: forwards, futures, options, swaps
 - Role of derivatives in financial markets
 - OTC vs. exchange-traded products and clearing mechanisms
- Module 2: Option Pricing and Greeks (09:45 – 11:15)
 - Black-Scholes model and assumptions
 - Greeks and their interpretation in risk management
 - Implied volatility and volatility surfaces
- Module 3: Exotic Options and Structured Payoffs (11:30 – 01:00)
 - Asian, barrier, and lookback options
 - Digital and binary structures
 - Path-dependence and payoff mapping

Day 2: Swaps and Structured Notes

- Module 1: Interest Rate Swaps and Swaptions (07:30 – 09:30)
 - Swap valuation and applications
 - Pricing forward rate agreements and swaptions
 - Curve bootstrapping and LIBOR transition impact
- Module 2: Credit Derivatives and CDS (09:45 – 11:15)
 - Credit default swaps (CDS) mechanics and pricing
 - Credit events and ISDA documentation
 - Counterparty risk and CVA/DVA concepts
- Module 3: Structured Notes and Capital-Protected Products (11:30 – 01:00)
 - Equity-linked and range-accrual notes
 - Principal-protected structures and embedded options
 - Real-world term sheets and investor motivations

Day 3: Quantitative Structuring and Simulation

- Module 1: Binomial and Monte Carlo Methods (07:30 – 09:30)
 - Option pricing using lattice models
 - Monte Carlo simulation for exotic instruments
 - Greeks estimation and path generation
- Module 2: Payoff Engineering and Reverse Engineering (09:45 – 11:15)
 - Designing custom payoffs to meet client objectives
 - Reverse engineering from investor views
 - Replication using vanilla instruments
- Module 3: Portfolio Hedging with Derivatives (11:30 – 01:00)
 - Delta-hedging and dynamic hedging strategies
 - Correlation trading and basis risk
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Hedging structured notes and credit positions

Day 4: Risk Management and Regulation

- Module 1: Risk Measurement of Derivatives Portfolios (07:30 – 09:30)
- Value-at-Risk (VaR), Expected Shortfall
- Stress testing and scenario analysis
- Greeks aggregation and limits management
- Module 2: Derivatives Regulation and Compliance (09:45 – 11:15)
- EMIR, MiFID II, and Dodd-Frank impact
- Trade reporting and clearing requirements
- Risk disclosures and investor suitability
- Module 3: Documentation and Operational Risk (11:30 – 01:00)
- ISDA Master Agreement and Schedule terms
- Operational risk in lifecycle events and margining
- Model governance and independent validation

Day 5: Advanced Structuring and Real-World Applications

- Module 1: Multi-Asset Structured Products (07:30 – 09:30)
- Basket, worst-of, and outperformance notes
- Quanto and dual-currency instruments
- Correlation risk and hybrid payoffs
- Module 2: Deal Simulation and Structuring Workshop (09:45 – 11:15)
- Design and pricing of a structured product based on investor profile
- Evaluation of risks, returns, and break-even points
- Pitch presentation and peer feedback
- Module 3: Final Review and Strategy Planning (11:30 – 01:00)
- Best practices in structuring and client management
- Action plans for implementing structured solutions
- Course wrap-up and Q&A

Certification

Participants will receive a Certificate of Completion in Advanced Derivatives & Structured Products Analysis, recognizing their capabilities in pricing, structuring, and risk managing complex derivatives and structured financial instruments in line with market and regulatory best practices.

Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
- **Industry-Leading Faculty:** Courses delivered by seasoned professionals with hands-on experience.
- **Practical Insights:** Learn to turn theory into actionable strategies for real-world business impact.
- **Client-Focused Solutions:** Customized programs designed to achieve your organisation's unique goals.

In-House / Customized Training

Interested in running this course for your team?

Please contact us:

TEL:

+601116373203

EMAIL:

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