# **Complete NISM Derivatives Certification Course**

# **30-Hour Comprehensive Training Program**

#### **Course Overview**

- **Duration**: 30 hours live classes + 40 hours comprehensive material
- **Schedule**: Friday 6-8 PM, Saturday 10-12 PM (15 weeks) + Wednesday 8-9:30 PM doubt clearing
- Exam Format: 150 questions, 180 minutes, 60% passing score, -0.25 negative marking

#### **Module 1: Derivatives Fundamentals & Market Introduction**

#### Week 1 | 2 Hours

## **Topics Covered:**

- Basics of derivatives definition and functions
- · History and evolution of derivatives markets globally and in India
- Types of derivatives forwards, futures, options, swaps
- Market participants hedgers, speculators, arbitrageurs
- OTC vs Exchange-traded derivatives
- Risk management and economic functions

#### **Learning Outcomes:**

- ✓ Understanding derivative products and their utility
- ✓ Distinguish between different derivative instruments
- ✓ Identify market participants and their roles

#### Module 2: Currency Markets & Exchange Rate Mechanics

#### Week 2 | 2 Hours

- Foreign exchange market structure and participants
- Major currency pairs and quotation conventions
- Base currency vs quotation currency concepts
- Exchange rate arithmetic and cross rates

- Two-way quotes and spread calculations
- · Market timing and settlement mechanisms

- Calculate cross rates and exchange rate conversions
- ✓ Understand FX market structure and operations
- ✓ Interpret currency quotations and spreads

#### Module 3: Interest Rate Concepts & Fixed Income Securities

# Week 3 | 2 Hours

## **Topics Covered:**

- Interest rate fundamentals and term structure
- Fixed income securities types and characteristics
- Government securities, corporate bonds, money market instruments
- Yield calculations current yield, YTM, spot rates
- · Bond pricing and valuation concepts
- Duration and convexity measures

## **Learning Outcomes:**

- Calculate bond prices and yields
- ✓ Understand interest rate risk measures
- ✓ Analyze fixed income securities

## **Module 4: Equity Markets & Index Construction**

#### Week 4 | 2 Hours

- Equity market structure and indices
- Index construction methodologies
- · Market capitalization vs price-weighted indices
- Major Indian indices Nifty, Sensex composition
- · Index management and rebalancing
- · Corporate actions impact on indices

- ✓ Understand index calculation methods
- ✓ Analyze impact of corporate actions
- ✓ Calculate index values and returns

## **Module 5: Currency Futures & Contract Specifications**

## Week 5 | 2 Hours

## **Topics Covered:**

- · Currency futures contract specifications
- Contract size, tick size, expiry cycles
- Margin requirements and mark-to-market
- · Currency futures pricing using interest rate parity
- Payoff profiles for long and short positions
- Practical examples with USDINR, EURINR contracts

## **Learning Outcomes:**

- ✓ Calculate currency futures fair value
- ✓ Understand margin and settlement mechanisms
- ✓ Draw payoff diagrams for currency futures

# **Module 6: Interest Rate Futures & Government Securities**

#### Week 6 | 2 Hours

- Interest rate futures contract specifications
- · Government securities futures pricing
- Clean price vs dirty price concepts
- · Conversion factor calculations
- CTD (Cheapest to Deliver) bond identification
- Hedging with IRF contracts

- ✓ Price interest rate futures contracts
- ✓ Calculate conversion factors
- ✓ Implement hedging strategies using IRF

## Module 7: Equity Futures - Pricing & Strategies

## Week 7 | 2 Hours

## **Topics Covered:**

- Stock and index futures contract specifications
- · Cost of carry model for equity futures pricing
- · Impact of dividends on futures pricing
- · Calendar spreads and inter-commodity spreads
- · Basis convergence and arbitrage opportunities
- Practical pricing examples

# **Learning Outcomes:**

- ✓ Calculate theoretical futures prices
- ✓ Identify arbitrage opportunities
- ✓ Implement calendar spread strategies

## **Module 8: Options Fundamentals & Greeks**

#### Week 8 | 2 Hours

- Options basics calls and puts
- Intrinsic value and time value concepts
- Moneyness ITM, ATM, OTM
- Option Greeks Delta, Gamma, Theta, Vega, Rho
- Black-Scholes model components
- Implied volatility concepts

- ✓ Calculate intrinsic and time values
- Understand option sensitivities (Greeks)
- ✓ Interpret implied volatility changes

# **Module 9: Option Strategies - Basic Positions**

## Week 9 | 2 Hours

## **Topics Covered:**

- Long and short call positions
- · Long and short put positions
- Payoff diagrams and breakeven calculations
- Risk-return profiles for each position
- When to use each strategy
- Practical examples with current market data

#### **Learning Outcomes:**

- ✓ Draw payoff diagrams for basic positions
- ✓ Calculate breakeven points
- ✓ Select appropriate basic strategies

## **Module 10: Advanced Option Strategies**

#### Week 10 | 2 Hours

- Straddles and strangles long and short
- Bull and bear spreads using calls and puts
- Butterfly spreads and condor spreads
- · Collar strategies and protective puts
- Covered calls and synthetic positions
- Strategy selection based on market outlook

- ✓ Implement complex option strategies
- ✓ Analyze multi-leg option positions
- ✓ Optimize strategies for different market conditions

# **Module 11: Trading Systems & Risk Management**

# Week 11 | 2 Hours

## **Topics Covered:**

- Exchange trading systems and order types
- Clearing and settlement mechanisms
- Margining systems SPAN, VaR models
- Position limits and exposure limits
- · Circuit breakers and surveillance systems
- · Risk management for different participant types

## **Learning Outcomes:**

- ✓ Understand trading and settlement processes
- ✓ Calculate margin requirements
- ✓ Apply risk management principles

# **Module 12: Hedging Strategies Across Asset Classes**

#### Week 12 | 2 Hours

- · Currency risk hedging for importers/exporters
- Interest rate risk hedging for bond portfolios
- Equity portfolio hedging with index futures
- Cross-hedging techniques
- Hedge ratio calculations and effectiveness
- · Dynamic hedging concepts

- ✓ Design hedging strategies for different risks
- ✓ Calculate optimal hedge ratios
- ✓ Evaluate hedge effectiveness

## Module 13: Arbitrage & Market Efficiency

## Week 13 | 2 Hours

## **Topics Covered:**

- Cash-futures arbitrage opportunities
- Calendar spread arbitrage
- · Put-call parity and conversion arbitrage
- Inter-exchange arbitrage
- · Currency arbitrage opportunities
- Transaction costs and execution challenges

## **Learning Outcomes:**

- ✓ Identify arbitrage opportunities
- ✓ Calculate arbitrage profits
- ✓ Understand execution complexities

## Module 14: Regulatory Framework & Compliance

#### Week 14 | 2 Hours

- · SEBI regulations for derivatives trading
- RBI guidelines for currency and interest rate derivatives
- · Participant eligibility and membership criteria
- Position limits and reporting requirements
- · Accounting and taxation of derivatives
- Investor protection measures

- ✓ Understand regulatory requirements
- ✓ Ensure compliance with position limits
- ✓ Apply correct accounting treatment

## **Module 15: Exam Preparation & Practice**

#### Week 15 | 2 Hours

## **Topics Covered:**

- Comprehensive revision of key concepts
- Numerical problem-solving techniques
- Exam strategy and time management
- · Mock test discussion and analysis
- Last-minute tips and clarifications
- · Common mistakes to avoid

#### **Learning Outcomes:**

- ✓ Apply comprehensive knowledge
- ✓ Solve problems efficiently
- ✓ Maximize exam performance

# **Key Course Features**

## **Flash Cards for Daily Practice**

- 30 flash cards covering 60 most important concepts
- Spaced repetition methodology for better retention
- Focus on formulas, definitions, and key relationships

# **Comprehensive Question Bank**

- Easy Questions: 80 questions covering basic concepts
- Moderate Questions: 70 questions with application-based problems
- Hard Questions: 50 questions with complex scenarios
- All questions include detailed explanations and solutions

## **Numerical Problem Mastery**

- 20 most important numerical question types
- Step-by-step solutions with clear methodology
- Real-world examples and practical applications
- Formula derivations and concept explanations

#### **Live Interactive Sessions**

- Friday Evening Sessions: 6-8 PM Core concept delivery
- Saturday Morning Sessions: 10-12 PM Problem solving and practice
- Wednesday Doubt Clearing: 8-9:30 PM Individual query resolution

## **Additional Resources**

- Comprehensive study notes (40 hours of material)
- · Mock tests with exam simulation
- · Performance tracking and analytics
- · Mobile app for on-the-go learning

# **Success Methodology**

#### **Learning Approach**

- 1. Conceptual Understanding: Build strong foundation
- 2. Practical Application: Real-world problem solving
- 3. **Exam Technique**: Time management and strategy
- 4. Continuous Assessment: Regular testing and feedback

#### **Study Schedule Recommendation**

- Pre-class: Review flash cards (15 minutes daily)
- During class: Active participation and note-taking
- Post-class: Practice numerical problems (30 minutes)
- Weekly: Complete mock tests and review performance

#### **Exam Strategy**

- Time Allocation: 1.2 minutes per question average
- Question Priority: Easy → Moderate → Hard
- Negative Marking Management: Educated guessing techniques

• Calculator Usage: Efficient calculation methods

#### **Course Outcomes**

Upon successful completion, participants will:

- 1. Master Core Concepts: Comprehensive understanding of derivatives across all asset classes
- 2. Excel in Numericals: Solve complex pricing, hedging, and strategy problems
- 3. **Apply Practical Knowledge**: Real-world application of derivatives concepts
- 4. Pass with Confidence: Achieve 70%+ scores in NISM certification exams
- 5. **Professional Competency**: Industry-ready knowledge and skills

#### **Contact Information**

For course enrollment and queries:

- **Duration**: 15 weeks intensive program
- **Commitment**: 4.5 hours per week (live sessions + self-study)
- Certification: Multiple NISM Series preparation (I, IV, VIII)
- Support: Continuous doubt clearing and mentoring

This comprehensive course is designed by finance professionals with extensive NISM certification experience and market expertise.