
PHASE I. FUNDAMENTALS OF SPECULATIVE TRADING

> THE BASICS

- Risk Taking Business
- Risk Management and Mitigation
- Risk Decision-Making
- Financial Market Risks
- Process of Exploiting Market Risk

> NATURE OF TRADING

- Trading: Art, Science and Mathematics
- >Preparation:
 - Maximum Adversity
 - Emotional Orientation
 - Losing Game
 - Random Markets
 - Best Loser Wins
 - Risk Management
 - Trading Partner
 - Financial Boundary

> KEYS TO SUCCESS IN TRADING

- Avoiding the Risk of Ruin
- Embracing Trading's Holy Grail
- Expectancy
- Opportunities
- Pursuing Simplicity
- Trading where Most Fear
- Validation
- Know Thy Self
- Mastering Internal Domain
- Attributes of a Successful Trader

- PRACTICAL APPLICATION: Formulate a Trading Business Plan

> MACHINERY OF ELETRONIC TRADING

- Trading Infrastructure
- Broker, Exchange, Clearing house and Regulator
- Market Maker
- Market Participants: Commercial, Hedger, Speculator, Arbitrager

- PRACTICAL APPLICATION: Research Paper on Selected Topic

> MACRO ECONOMICS

- GDP
- The Wealth of Nations and Economic Growth
- Growth, Capital Accumulation, and the Economics of Ideas
- Savings, Investment, and the Financial System
- Unemployment and Labor Force Participation
- Inflation and Quantity Theory of Money
- Business Fluctuations
- Business Cycle Theories
- Monetary Policy and the Federal Reserve
- Fiscal Policy

-PRACTICAL APPLICATION: Macro Analysis on Past Financial Event

> MONEY AND THE FINANCIAL SYSTEM

- Money
- Banks
- Interest Rates
- Federal Reserve and Central Banking
- Federal Reserve's Balance Sheet and the Money Supply Process
- Monetary Policy
- International Financial System and Monetary Policy (Optional)
- Spot Markets
 - Equity
 - Hard and Soft Commodity
 - FX
 - Precious Metal
 - Energy
 - Bonds
 - Crypto
- Derivative Market
 - Futures
 - Forwards

- Swaps
- CFD
- Options

> DERIVATIVE

- Futures
- Options
- CFD

- PRACTICAL APPLICATION: Analysis Research paper on Financial Crisis

> TRADING MATHEMATICS

- Probability Theory
- Statistics
- Calculus: Derivative and Integral
- Differential Equation
- Linear Algebra
- Mathematical Modeling

- PRACTICAL APPLICATION: Research TTP on Weather Forecast modeling

> DATA ANALYSIS

- Data, Information, Intelligence and Knowledge
- Data Analysis Process
- Methods
- Statistical Analysis
- Time Series Analysis
- Descriptive Analysis
- Inferential Analysis
- Predictive Analysis
- Anomaly Detection
- Machine Learning:
Deeping Learning, Supervised and Unsupervised
- Research Terminal (OpenBB)
- R Programming

- PRACTICAL APPLICATION: Pull Data, Analyze and Extract Insight on Selected Market

> MARKET INTELLIGENCE AND ANALYSIS

- Market Participants
- Fundamental Analysis
- Technical Analysis

- Quantitative Analysis
- Hybrid Analysis
- Understanding Volatility
- Understanding Risk
- Developing a Cohesive Market View
- **PRACTICAL APPLICATION: Develop Analysis Framework on Selected Market**

> MODELING OF MARKET BEHAVIOR

- Modeling
- Quantitative
- Qualitative
- Visual
- Market Microstructure
- **PRACTICAL APPLICATION: Develop a Trading Model to Approximate observed Market Behavior**

> TRADING OPERATION

- Speculation
- Marketing Making
- Arbitrage
- Hedging
- Evaluating Trades
- Creating a Trading Plan
- Executing a Strategy to Express Market View
- Directional Trading
- Spread Trading
- Option Trading
- Quantitative Trading
- Managing Positions
- PRACTICAL APPLICATION: Develop a Trading Battle Plan**

PHASE II. EXPLOITING RISK

STRATEGY DEVELOPMENT

- > Trading Style
- Trading Mode
- Time Frames
- Choosing your Style

- Long-Term Trend Trading
- Short-Term Swing Trading
- Intraday Trading
- > Market Selection
- Good Risk Management Attributes
- Good Trading Attributes

- > The Three Pillars
- Method
- Money Management
- Psychology

> MONEY MANAGEMENT

- Martingale
- Anti-Martingale
- Single Contract no Money Management
- Fixed-Risk
- Fixed-Capital
- Fixed-Ratio
- Fixed-Units
- Williams Fixed-Risk
- Fixed-Volatility

PRACTICAL APPLICATION: Research the Kelly Formula

> METHOD DEVELOPMENT

- The Process
- Trading Edge
- Attributes of Winning Method
- Testing and Iteration

PRACTICAL APPLICATION: Formulate Trading Idea/Thesis

> PSYCHOLOGY

- Managing Hope
- Managing Greed
- Managing Fear
- Managing Pain
- Maximum Adversity

PRACTICAL APPLICATION: Watch 'Rogue Trader' and write an Essay

RISK-TAKING SYSTEM DEVELOPMENT

- Survey of System Engineering
- Computer Software Development
- Programming Concepts and C# Coding
- Trading Software's Familiarization
- Ninja Trader API
- Strategy Development Process
- PRACTICAL APPLICATION: Research on Trading Method/System

PHASE III. INTERNALIZE TRADING

- Guest Speaker, Professional Trader
 - Setting Financial Goals and be SMART about it
 - Internalize Trading framework through Deep Practice
 - Semi-Live Trading to Confirm Trading Edge
 - Performance Coaching
 - Trade Reporting, Journaling and Improvement
 - Mentoring Junior traders
 - Live Trading Demonstration
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