Level II Learning Objectives by chapter (2017)

1.	Charting

- Explain the six basic tenets of Dow Theory
- Interpret a chart data using various chart types (line, bar, candle, etc)
- Classify a given trend as primary, secondary, or minor fluctuations
- Analyze breakout signals for use in forecasting
- Recognize evidence for improving confidence in breakout signals
- Compare and explain trend signals over multiple time frames
- Draw valid trend lines
- Interpret the significance of trend line breaks

2.	Moving Averages

- Describe how moving averages are used to identify trends
- Describe the different ways to calculate various moving averages
- Explain the concept of directional movement
- Compare and contrast when to apply different styles of envelopes, bands, and price channels

3.	Time-Based Trend Calculations

- Correctly apply and explain the following tools: momentum, rate of change, moving average, accumulative average, reset accumulate average
- Contrast the use of various moving averages
- Explain the drop-off effect
- Determine the strength of a trend based on indicator data
- Select the correct definition of trend strength indicators

4.	Trend Systems (Part 1)

- Explain three reasons why trend systems work
- Determine appropriate asset selections based on trend and forecast
- Generalize how buy and sell signals are used with indicators and tools for measuring trend, such as: Moving Averages, Bollinger Bands, Keltner Channels, Percentage Bands, Volatility Bands, and combinations of bands and other indicators
- Describe how to apply the 10-day moving average rule in a trading system

5.	Trend Systems (Part 2)

- Explain how a trader or investor would go about selecting the right moving average to use
- Explain the role of each moving average in a two-trend or three-trend method of trading
- Describe two general rules for generating an exit signal when using moving averages, and explain which one of the two is considered better than the other

6.	Momentum and Oscillators

- Explain the purpose for using momentum and rate-of-change studies in technical analysis.
- Explain how to select and identify entry and exit signals of a trend following system using a momentum indicator
- Explain how to select and identify entry and exit signals of a mean reversion system using a momentum indicator
- Explain how to select and identify entry and exit signals of a trend following system using a MACD indicator
- Explain the differences that be observed when comparing simple momentum, RSI and Stochastic oscillators with similar calculation periods
- Identify entry and exit signals given by the standard forms of the following technical studies: Momentum, RSI, Stochastic, Williams %R, A/D Oscillator, Ultimate Oscillator, Relative Vigor Index, True Strength Index, TRIX, Money Flow Index, Herrick Payoff Index

7.	Volume, Open Interest, and Breadth

- Explain how to interpret information from the following data: daily volume, total volume, futures open interest, tick volume, Equivolume, Herrick Payoff Index (as it relates to volume)
- Distiguish features of intraday volume patterns from volume patterns on daily charts.
- Explain why volume is a predictor of volatility
- Identify the key information provided by each of the following technical studies: Average Volume, Normalized Volume, Volume Momentum and Percentage change, Force Index, Volume Oscillator, On-Balance Volume, Money Flow Index, Volume Count Indicator, Volume Accumulator, Intraday Intensity, Price and Volume Trend (PVT), Aspray's Demand Oscillator, Tick Volume Indicator, VWMACD, Elastic Volume Weighted Moving Average (eVWMA). and VWAP
- Evaluate how each of the following breadth indicators might be used for confirmation: Advancers vs. Decliners, up volume and down volume, Sibbett's Demand Index, Bolton-Tremblay, Shultz, McClellan Oscillator, Upside/Downside Ratio, Arms Index, Thrust Oscillator, New Highs and Lows

8.	Bar Chart Patterns

- Explain the controversy over whether tradeable patterns exist in technical analysis
- Describe the influence that computer technology has had on the study of patterns
- Explain the proper application and use of classic bar chart patterns such as triangles, flags, pennants, double/triple tops or bottoms, broadening formations, diamond tops and bottoms, rounding tops and bottoms, and head-and-shoulders patterns
- Compare the historical performance measures of major bar chart patterns

9.	Short-Term Patterns

- Identify short-term patterns that can be used as a tool to identify reversals in longer-term trends
- Recognize the types of gaps that occur on price charts
- Explain the significance of various types of gaps
- Compare and analyze wide-range days and narrow-range days to identify their implications for volatility
- Describe and interpret the most common candlestick patterns

10.	Option Pricing Basics

- Recognize the basic characteristics of call and put options
- Differentiate between call options and put options

11.	Understanding Implied Volatility

- Identify effective measures of volatility risk
- Identify volatility risk from given charts and data
- Compare volatility behavior with corresponding price behavior

12.	About the VIX Index

- Calculate expected 30-day movement of an index or a stock
- Explain the relationship between the VIX and market movement
- Interpret volatility signals as part of a market forecast

13.	Regression

- Recognize the meaning of values calculated by linear regression and multiple regression
- Explain why linearity is the most important assumption before using a regression model

14.	Regression Analysis
- Explain why an ARIMA model may be thought of as an adaptive process - Explain how you would apply ARIMA trading strategies to a given chart scenario - Show how you might use linear regression to compare relative strength of various markets	

15.	Correlation
- Identify three methods of calculating the correlation coefficient - Recognize confirmation signals given from correlation data	

16.	Intermarket Analysis
Recognize confirmation signals inferred from intermarket analysis	

17.	Cycle Analysis
- Identify potential trading opportunity and risk based on seasonal cycle information - Define methods for applying cycle studies - Explain how to identify a cycle by removing the trend from a price series - Identify entry and exit signals given by the standard forms of the following technical studies: Hilbert Transform, Fisher Transform, Cycle Channel Index, Short Cycle Indicator	

18.	The Scientific Method and Technical Analysis
- Give an example of the applicability of the scientific method towards technical analysis research - Explain the three forms of the EMH - Explain the three consequences, articulated in this chapter, of adopting the scientific method in technical analysis	

19.	Theories of Nonrandom Price Motion
- Describe the two paradoxes of the EMH - Identify examples of studies that contradict semi-strong and weak forms of the EMH. - Explain insights from the BSV, DHS, and HS hypotheses that use Behavioral Finance to help address problems with the EMH - Describe insights from theories that attempt to explain how markets may be predictable even if largely random at times.	

20.	Case Study of Rule Data Mining for the S&P 500

Note: This chapter is intended to be a demonstration of proper research and evaluation technique with regards to using technical analysis in system development.
- Explain the usefulness of the following indicators as described in this chapter: channel breakout operator, moving average operator, channel-normalization operator

21.	Selection of Markets and Issues: Trading and Investing	
- Explain the major factors to consider when choosing a security to invest in or trade - Describe the relationship between markets for hard assets and soft assets - Explain the basic concepts of intermarket analysis - Analyze various securities and investment vehicles using relative strength - Identify the relative strength of an individual stock compared to a benchmark		- Explain the major factors to consider when choosing a security to invest in or trade - Describe the relationship between markets for hard assets and soft assets - Explain the basic concepts of intermarket analysis - Analyze various securities and investment vehicles using relative strength - Identify the relative

		strength of an individual stock compared to a benchmark

22.	System Design and Testing	
- Explain the importance of using a system for trading or investing - Compare and analyze differences between a discretionary and nondiscretionary system - Describe the mind-set and discipline required to develop and trade with a system - Explain the basic procedures for designing a system - Describe the role that risk management plays in system design - Identify and evaluate various ways to test a system - Compare and analyze standard measures of system profitability and risk		- Explain the major factors to consider when choosing a security to invest in or trade - Describe the relationship between markets for hard assets and soft assets - Explain the basic concepts of intermarket analysis - Analyze various securities and investment vehicles using relative strength - Identify the relative strength of

	an individual stock compared to a benchmark

23.	Relative Strength Strategies for Investing
▪ Describe two solutions to the drawbacks inherent in relative strength systems.	

24.	Perspectives on Active and Passive Money Management
▪ Give an example of a Relative return and an Absolute return vehicle. ▪ Explain the difference between Alpha and Beta ▪ List the four stages of the top-down fundamental analysis process ▪ Describe seven anomalies the Efficient Market Hypothesis does not explain ▪ Summarize the three explanations of how information becomes incorporated into securities prices	

25.	A Stock Market Model
▪ Generalize the model in this chapter to show how it could be adapted to work with anyone's own trading or investing system ▪ Identify the five points any environmental model should into account ▪ Give an example of an indicator or study that could reasonably substituted for one item in each of the three components covered in the Fab Five model	

27.	A Simple Model for Bonds
▪ Identify the five indicators used in the modified form of the Zweig Bond Model ▪ Explain one reason why this model might work well with Mutual funds	

28.	Perception Biases
▪ Explain problems that might inhibit investors afflicted with one or more of the following perception biases: Saliency, Framing, Anchoring, and Sunk-Cost bias	

29.	Inertial Effects

- Explain problems that might inhibit investors afflicted with one or more of the following inertial effects: endowment effect, status quo effect, disposition effect