

Course Overview

+Python Crash Course
(Appendix)

1

Basics / Prerequisites

- Asset Classes & Equity Markets
- Trading & Investing 101
- Loading Stock Data
- Data-driven Analysis
- Trading with Interactive Brokers (IBKR) API
- Performance Analysis

How to start

(basic knowledge, market data)

2

ETF Trading & Equity Portfolio Investing

- Stock Indices & ETF Trading
- Index Replication/Tracking
- Creating Investment Strategies
- Implementation with IBKR
- Portfolio Optimization
- Portfolio Theory & Asset Pricing

Long-Term Investing

(wealth accumulation)

3

Algorithmic Trading with IBKR

- Momentum vs. Contrarian
- Technical Analysis & Indicators
- Strategy Backtesting
- Strategy Optimization
- Strategy Implementation with Python and IBKR
- Multiple Ticker Strategies

Short-Term Trading

(income generation)

4

Advanced VIP Topics

- Advanced Data Sources
- Advanced Trading and Investment Strategies
- ...
- What are you interested in?

Boosting Parts 1-3

Part 1 – Learning Outcomes

1

Basics / Prerequisites

- **Finance and Investing 101** (Asset Classes, Equity vs. Fixed Income, Trading & Investing)
- How to **load Data** for Stocks worldwide (Price, Dividends, Stock Splits, Ratios, Statements)
- How to get complete lists with **Stock Ticker Symbols**
- Stock/Equity **Analysis** (Performance, Multiples, Dividend Policy)
- **API Trading** with Interactive Brokers (IBKR)
- How to create **Trading Algorithms** with Python and IBKR
- Repeat and discover with **Keystone Projects**
- Are your Python skills sufficient for this course? If not, check out the **Python Crash Course**.



Part 2 – Learning Outcomes

2

ETF Trading & Equity Portfolio Investing

- **Equity Index** vs. **ETF** vs. **Portfolio** vs. **Benchmark**
- **Investment Strategies** (passive vs. active vs. semi-active equity portfolio management)
- **ETF** Investing and **Index Tracking**/Replication (passive)
- **ETF Trading** with IBKR
- Creation and IBKR-Implementation of **customized Investment Strategies** (semi-active)
- **Portfolio Theory** and the Diversification Effect
- From passive to active Investing (Stock Picking) with the **Black-Litterman Model**



Part 3 – Learning Outcomes

3

Algorithmic Stock Trading with IBKR

- Trading Strategies and Categories
- Lifecycle of a Trading Strategy
- Strategy Backtesting
- Strategy Optimization and Forward Testing
- Technical Analysis and Technical Indicators with Python
- Implementation and automation of Strategies with Python and the IBKR API
- The importance of Trading Costs

