Python Algo Trading Course

By *Macro Global Markets*

Course Outline

Version 1.0-2025

Course Objectives

The objective of this course is to deliver the knowledge and practical application to create a functioning stock market trading algorithm.

- Upon completing this course, participants will be able to:
- Explore algorithmic trading concepts and trading frameworks.
- Plan and draft strategy frameworks to code into python.
- Utilise python to connect to trading platforms, pull data and place orders.
- Test and implement trading strategies programmatically.

Course Details

Prerequisites: Own computer, internet and basic computer usage understanding.

Assessment:

- 4x multiple choice knowledge exams
- 1x applied knowledge project

Location: Online (Australia)

Timeframe: 1 Unit Per Week over 4 weeks

Learning Resources: All learning resources will be supplied.

Workload: Students will have access to 4 lectures, learning materials and practice content of approximately 4 to 5 hours each week.

Intake: Application form for intake at the beginning of each month.

Course Modules

Module 1: What is Algorithmic Trading?

In module 1, you will set up and connect the required platforms to enable further development and access to financial markets and learn about the role each platform plays.

- Explore algorithmic trading and how it can be used to automate a portfolio
- Infrastructure, platforms, APIs, data sources and requirements
- Core elements of algorithmic trading

Module 2: Algorithmic Strategy Development

Module 2 covers the key elements around planning and design of an algorithmic trading strategy.

- Introduction to stock market trading
- Risk management and algorithmic trading entry and exit conditions
- Elements of a strategy and algorithmic planning
- AI prompt engineering for python algorithms

Module 3: Coding and Testing Python Algorithms

Module 3 focuses on creating, implementing and testing the code.

- Python algo prompt engineering guidance for AI development
- Python basics for trading algorithms
- Implementing and testing python algorithms on the trading platform
- Error handling and refining a strategy

Module 4: Research Techniques and Portfolio Development

In module 4 we define stock selection processes to allow the trader to define stocks to use within an algorithm.

- Stock research methods
- Macroeconomic and Sector Analysis
- List building for selected stocks
- Understanding market conditions and applying programmatic filters

Applied Learning Outcomes

Passing this Python Algo Trading Course will require the understanding of each module and apply the knowledge by developing a functioning stock market algorithm incorporating a set of requirements.

To complete this course, participants must:

- Demonstrate understanding of each module through a short quiz
- Deliver a functioning trading algorithm using Python
- Explain their strategy logic and risk parameters
- Optional Extra: Compete in the AlgoStockX Arena

How to Apply

Request an application form via the contact us page on Macro Global Markets Securities website.

Contact Us

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Email: support@macrogmsecurities.com.au

Webform: https://macrogmsecurities.com.au/contact-us/

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