



University of  
**Strathclyde**  
Business  
School

## Department of Accounting and Finance AG217 Portfolio Management and Security Analysis

2024/25 Semester 2  
20 Module Credits

### **Module Details**

#### **Module Description**

The module covers the general principles of managing investment portfolios. This module builds on the material covered in the Introduction to Finance and Accounting module.

#### **Teaching Hours**

Lectures: All weeks, Monday 3-5pm in TBC and Wednesday 11am-1pm in TBC.

Computer Labs: Weeks 2-10 (excluding week 8)

Please see the "Computer Lab Sign Up" tab on the AG217 Myplace page here: [Course: AG217: Portfolio Management and Security Analysis | classes \(strath.ac.uk\)](#) for computer lab times/dates: All students are required to sign up for one lab and one tutorial slot per academic year. These are available on a first come first served basis.

Attendance at tutorials is compulsory and will be monitored. If your attendance is unsatisfactory then you will receive a warning letter, which will be retained in a departmental file.

If you are absent from a tutorial or lab please email [sbs-accfin-admin@strath.ac.uk](mailto:sbs-accfin-admin@strath.ac.uk). If you are absent due to medical reasons please submit medical evidence or self-certificate via [Pegasus: Personal Circumstances Procedure | University of Strathclyde](#)

#### **Prerequisites**

AG105

### **Contact Details**

Lecturer: Professor Jonathan Fletcher

Room number: Stenhouse 3.27

Telephone: 0141 548 4963

E-mail: [j.fletcher@strath.ac.uk](mailto:j.fletcher@strath.ac.uk)

Office Hours: Tuesday, 2-4pm

Course Tutors: (Tutorial workshops); Donald Campbell and Martin Kemmitt (Computer labs)

E-mail: [donald.campbell@strath.ac.uk](mailto:donald.campbell@strath.ac.uk) / [m.kemmett@strath.ac.uk](mailto:m.kemmett@strath.ac.uk)

## **Module Learning**

### **Module Aims**

The module aims to provide an understanding of the principles and theories relevant to the process of building investment portfolios. The module covers practical applications as well as theoretical material. The module considers mean-variance portfolio theory, linear asset pricing models such as the capital asset pricing model (CAPM) and arbitrage pricing theory (APT), market efficiency, valuation of bonds, bond portfolio management and fund performance.

### **Learning Objectives and Outcomes**

The following learning outcomes will contribute to your self-analysis and reflection in your Student's Personal Development Planning (SPDP). These learning outcomes will be assessed using the methods explained in the "Assessment" section in this Outline.

Subject-specific knowledge and skills

On completing this module you will be able to:

- A.1 Calculate the expected return and risk of a portfolio.
- A.2 Discuss the approach of building optimal portfolios using the Markowitz model.
- A.3 Evaluate the estimation risk problem in sample mean-variance portfolios.
- A.4 Discuss the approach of resampled portfolio efficiency<sup>TM</sup>.
- A.5 Explain the Capital Asset Pricing Model and Arbitrage Pricing Theory asset pricing models.
- A.6 Discuss the Efficient Markets Hypothesis and its' practical implications for investors.
- A.7 Discuss the alternative approaches of evaluating fund performance.
- A.8 Discuss the main factors that affect the valuation of bonds.

A.9 Critically evaluate the main approaches used in bond portfolio management.

Cognitive abilities and non-subject specific skills

B.1 Develop problem solving skills in the area of Investments and the issues faced by portfolio managers.

B.2 Develop computational skills through the use of Matlab in the areas covered by the module and applicable in other areas of Finance.

B.3 Develop analytical skills in evaluating the limitations of using Finance models in practical implications.

B.4 Develop skills in writing short projects with regards to structure and content.

## **Module Structure**

### **Timetable**

Week 1 – Types of financial securities, managed funds, use of benchmarks and market indexes, introduction to statistics and regression analysis.

Week 2 – Calculating expected return and risk of a 2-asset and N-asset portfolio, naïve portfolio diversification, mean-variance analysis with N risky assets.

Week 3 – Mean-variance analysis with N risky assets and risk-free asset, Applications, and criticisms of mean-variance analysis.

Week 4 - CAPM, theory of CAPM, predictions of the model, testing the CAPM.

Week 5 – Estimation risk problem, Constrained Mean-Variance Optimization, Resampled Portfolio Efficiency

Week 6 – Arbitrage Pricing Theory (APT) and Multifactor Models

Week 7 – APT, Market efficiency,

Week 8 – Market Efficiency and Empirical Tests

Week 9 – Evaluating Managed Fund Performance

Week 10 – Bond Valuation and Bond Portfolio Management

Week 11 – Revision

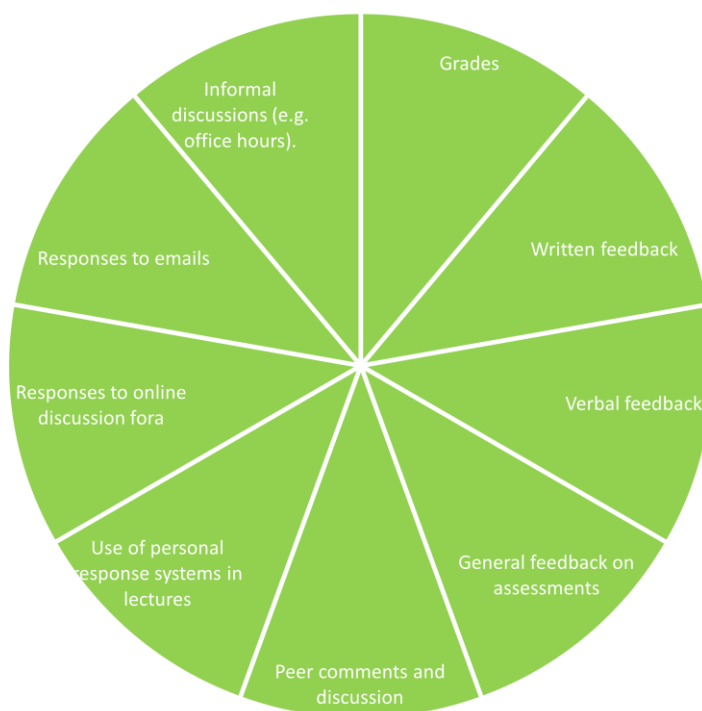
## **Assessment and Feedback Details**

1. Group Assignment worth 40%. Due: Thursday 13<sup>th</sup> of March 2025. Marks/Feedback will be released on or before Thursday 3<sup>rd</sup> of April 2025.
2. Final Exam worth 60%. Exam date: During the semester 2 exam diet.

An overall weighted average mark of 40% is required to pass the module.

It is a requirement for course completion to submit all assessed coursework. Non-submission of any part will result in an overall mark of zero being awarded for the module.

The following forms of feedback will assist you in this module:



## **Artificial Intelligence**

You are not permitted to use Gen-AI tools for this module unless you are a student with an adjustment report on Pegasus where this is explicitly specified as a 'reasonable adjustment'. Any student suspected of using such tools will be subject to investigation outlined in the [Student Discipline Procedure - Academic Misconduct.pdf \(strath.ac.uk\)](#) process.

## **Reading List**

Any good Investments book is fine.

A course pack is available under the “Module Outline & General Information” tab on the AG217 Myplace page.

### **UG Module Manual (1<sup>st</sup>-3<sup>rd</sup> Year)**

Please refer to the accounting and finance UG manual module for the following ([Years 1-3 Module Manual.docx](#)):

- Tutorial Attendance
- Useful Contacts
- Penalties for Late Submission
- Feedback
- Compensation Scheme
- Resit Policy
- Reassessment
- Universal Marking Guide
- Useful Links