



University of
Strathclyde
Business
School

Department of Accounting and Finance AG432 Financial Quantitative Methods

2026/27 Semester 1

20 Module Credits

Module Details

Module Description

This module aims to build on the knowledge, understanding, and skills acquired in the Quantitative Methods in Finance module and extend it further, especially in the context of matrix operations and computer programming skills such as MATLAB. It focuses on applications in finance of econometric techniques and is extended to incorporate Limited Dependent Variable (LDV) methods with their applications in finance.

Teaching Hours

Lectures: Weeks 1-10 (excluding week 4 for class test), Friday 11-1pm in TL329.

Lab: Friday 1-2pm in LT501.

Prerequisites

Honours entry requirements

Contact Details

Lecturer: Dr Leilei Tang

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Office Hours: Thursdays 13:00 – 15:00

Module Learning

Module Aims

The main aim of the module is to enable students to understand regression analysis, theories of hypothesis testing, and both linear and nonlinear regression estimations. The main feature of this module is to introduce matrix operations and computing programming skills to conduct data analysis with MATLAB.

Learning Objectives and Outcomes

Subject-specific knowledge and skills

On completing this module, you will be able to:

- A1 Understand the concept and use of multivariate analysis and matrix operation
- A2 Understand issues involved in modelling time series data and computer programming
- A3 Understand and question the problems of some of the theoretical models in practice and consider the practical solutions to these problems.
- A4 Have a better understanding of the relevant theoretical aspects of finance.
- A5 The module will lead to a greater appreciation of the problems and limitations of the theory of finance in working with real information. Through this, students will be asked to
- A6 question theories and models which they previously have used.

Cognitive abilities and non-subject specific skills

During the module you will:

- B1 develop academic skills in reading and understanding basic computer programming.
- B2 carry out practical assignments using analytical skills that can be applied to other
- B3 situations requiring case study interpretation.
- B4 The module will enable students to analyse real world finance problems and cases.
- B5 The module will encourage students to participate actively in discussions.

Module Structure

Timetable

- Week 1: Basic matrix operation (1)
- Week 2 Basic matrix operation (2) and Hypothesis testing
- Week 3: Introduction multivariate regression analysis
- Week 4: Class test (30%)
- Week 5: Introduction to final project and Logistic regression

Week 6: Logistic regression estimation using MATLAB

Week 7: Project discussion

Week 8-9: Advance Econometric Topics

Week 10: Project submission (70%)

Assessment and Feedback Details

1. Class test worth 30% Friday 16th October 2026. The class test will be held during the regular lecture slot at 10:30am. Marks/Feedback will be released on or before Friday 6th November 2026, 10:30am.
1. Final assignment worth 70%. Due Thursday 26th November 2026, 12pm. Marks/Feedback will be released by the exam board.

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

Assessment

Students are expected to complete all elements of assessment in the module. Non-submission of any element will lead to an overall mark of zero for the module. Personal circumstances will be considered in line with the [Procedure for the Consideration of Academic Mitigation by a Board of Examiners](#)

Exam Paper/Class Test Paper Identification Requirements

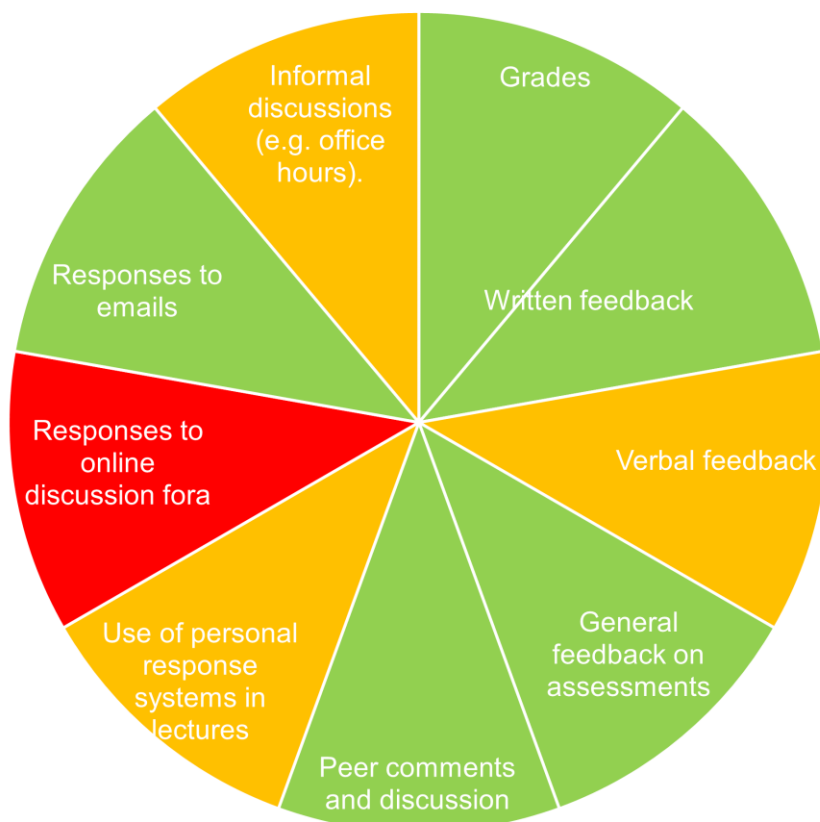
Students must follow all instructions in the examination booklet/class test booklet and on the examination paper/class test paper relating to candidate identification. Failure to follow these requirements may result in a mark of zero being awarded for the module.

Module Feedback

The following forms of feedback will assist you in this module: Verbal general feedback and formal written project feedback.

<i>Feedback category</i>	<i>Details for module</i>	<i>Colour</i>
Grades	Students will receive marks on the weekly tasks according to the relevant grading rubric for the task and on the individual essay	Green
Written feedback	Students will receive written feedback on the final essay comparing their submission against the marking criteria for the assignment	Green

Verbal feedback	Students will receive weekly verbal feedback on the performance of lectures	Amber
General feedback	The average mark and mark distribution for the final essay will be shared with all students.	Green
Peer comments and discussion	The class has general discussion forum and forums for each weekly topic where students are encouraged to participate and share insights	Green
Use of personal response systems in lecture	Similar to verbal feedback	Amber
Responses to online discussion forum	There will be no online discussion	Red
Responses to email	Students are encouraged to email the lecturer in charge	Green
Informal discussions	There are weekly bookable “slots” for any student wishing to discuss questions with teaching staff.	Amber



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

Please refer to the AG432 Myplace page to access the Reading List.

UG Module Manual (Honours)

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

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

Reassessment

Final year modules are not normally reassessed. Any reassessment is at the discretion of the Board of Examiners and is only offered in exceptional circumstances. Should the Board agree to allow reassessment of this module, the form of resit will be at the discretion of the department and may be in the form of a resit examination or a reassessment of the coursework.