Department of Accounting and Finance
AG105 Introduction to Finance and Financial Statistics

2024/25 Semester 1 & 2
20 Module Credits

Module Details

Module Description

This module provides an introduction to finance, covering the basic theories of financial markets, corporate finance and investment, financial management, personal finance, security analysis and statistical applications in finance.

Teaching Hours

Semester 1 Lectures: All weeks, Monday 3-5pm in TG312
Semester 2 Lectures: TBC
Semester 1 Tutorials: Weeks 3-11 (excluding week 9)

Semester 2 Tutorials: Weeks 4-11

Please see the "Tutorial and Lab Sign Up" tab on the AG105 Myplace page here: Module: AG105: Introduction to Finance and Financial Statistics | classes (strath.ac.uk)for tutorial 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. If you are absent due to medical reasons please submit medical evidence or self-certificate via Pegasus: Personal Circumstances Procedure | University of Strathclyde

Prerequisites

None.

Contact Details

Lecturer: Professor Graeme Acheson / Dr Linxiang Ma

Room number: Stenhouse 3.15 / Duncan Wing 6.11

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Office Hours:

Graeme Acheson: Appointments available via email / Linxiang Ma: Wednesdays 9-10am

Module Tutor: Pratik Gupta / Umair Afzal

E-mail: pratik.gupta@strath.ac.uk / umair.afzal@strath.ac.uk

Module Learning

Module Aims

The purpose of this module is to provide an introduction to finance and statistical concepts as applied in finance. In semester one you will be introduced to the fundamental principles and theories of finance and provided an awareness of the important role of the financial manager. The topics included will be financial markets, time value of money, valuation of stocks and bonds, and capital budgeting methods. Semester two aims to introduce statistical methods employed in finance, such as reporting and interpreting basic descriptive statistics, probability theories, hypotheses testing and regression analysis. This module is essential for students wishing to study finance and pursue a career in accounting or finance.

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 the student will have the ability to:

 A1   Understand the role and objectives of the corporate finance manager;
 A2   Appreciate the external environment in which a business entity functions and the interactions between the financial manager and other stakeholders;
 A3   Understand the role of banks and the sources of finance they can provide to businesses;
 A4   Understand the primary and secondary equity markets, including how to calculate and interpret stock market ratios and indices;

A5   Understand how to value securities and the concept of risk and return;
A6   Understand the importance of portfolio theory and explain the concepts of diversification and risk and the capital asset pricing model;
A7   Understand and apply the concept of the time value of money;
A8   Analyse investments using investment appraisal techniques and have an appreciation of their strengths and weaknesses;
A9   Have an understanding of how the main principles of finance apply to the finance and investment decision of an individual or family unit;
A10 Explain and interpret basic descriptive statistics and their use in finance;
A11 Test competing hypotheses using basic univariate and multivariate analysis.

A12 Run and interpret the outputs of simple regression model.

Cognitive abilities and non-subject specific skills

During the module you will:

B1   Develop sound analytical skills.

B2   Develop academic skills in listening, reading and writing.

B3   Develop the ability to discuss and work within a team, particularly during tutorial.

B4   Develop an understanding of the role of analysis in the development of practical decision making techniques.

Achievement of Learning Outcomes

The achievement of learning outcomes is necessary to successfully complete the module, both in terms of your learning development and in your module assessment. It is important, therefore, that you are confident about achieving these outcomes as the module progresses. Attached to the module outline is a Record of Learning Outcomes Achievement. This will serve to help you focus on the learning outcomes by keeping a record of when and how you feel you have achieved each outcome.

Learning activities

You <u>MUST</u> follow the following plan/activities to appreciate this technical module.

Pre-lecture activities

- You MUST read the relevant chapters from the prescribed core text.
You MUST practice all the end of chapter questions. The suggested solutions are on myplace.
So please **Practice! Practice! Practice!**

During lecture activities

- You MUST be attentive to the contents of the lectures and actively participate in the discussions when asked to do so.
- Interrupt the lecturer and ASK QUESTIONS if you do not follow anything during the lectures.

Post lecture activities

- You MUST attempt all the tutorial questions. Again, **Practice! Practice! Practice!**

During tutorial activities

- You must verify the steps and the answers with your workings as the tutorial is delivered.
- Interrupt the tutor and ASK QUESTIONS if you do not follow anything during the tutorials.

Post tutorial activities

If you still need help then please:

- Set-up a meeting with the lecturer related to the contents taught in the lectures.
- Set-up a meeting with the tutor related to the content discussed in the tutorials.

Module Structure

Timetable

A brief plan of the module teaching in each semester is provided below.

Semester 1 (Delivered by Graeme Acheson)

Teaching Week	Lecture Topic	Textbook Reading (HR WJJ)	Lecture Time	Tutorial
1	Introduction Financial Markets	Mishkin Ch. 2	Monday (15:00-17:00)	No Tutorial
2	Financial Markets	Ch. 9	UNIVERSITY CLOSED – no live module (Myplace Video)	No Tutorial
3	Time value of money	Ch. 4	Monday (15:00-17:00)	Tutorial 1 (FM)

4	Time value of money	Ch. 4	Monday (15:00-17:00)	Tutorial 2 (TVM)
5	Bonds	Ch. 5	Monday (15:00-17:00)	Tutorial 3 (TVM)
6	Bonds	Ch. 5	Monday (15:00-17:00)	Tutorial 4 (Bonds)
7	Stocks	Ch. 5	Monday (15:00-17:00)	Tutorial 5 (Bonds)
8	Reading Wee			
9	Stocks (EMH)	Ch. 5	Monday (15:00-17:00)	Tutorial 6 (Stocks)
10	Investment Appraisal	Ch. 6-7	Monday (15:00-17:00)	Tutorial 7 (EMH)
11	Investment Appraisal & Module Review	Ch. 6-7	Monday (15:00-17:00)	Tutorial 8 (IA)

Each topic will involve a combination of delivery methods and activities.

AG105 Semester 2 Schedule (Linxiang Ma)

Teaching Week	Lecture Topic	Textbook Reading	Lecture Time	Tutorial
1	Data and statistics, Descriptive statistics I	ASW Ch.1 & 2	Monday (15:00-17:00)	No Tutorial

2	Descriptive statistics II, Introduction to probability	ASW Ch.3 & 4	Monday (15:00-17:00)	No Tutorial
3	Probability distributions	ASW Ch.5 & 6	Monday (15:00-17:00)	No Tutorial
4	Sampling distributions, Interval estimation I	ASW Ch.7 & 8	Monday (15:00-17:00)	Stats 1
5	Interval estimation II, Hypothesis testing I	ASW Ch.8	Monday (15:00-17:00)	Stats 2
6	Hypothesis testing II	ASW Ch.10	Monday (15:00-17:00)	Stats 3
7	Linear regressions	ASW Ch.14	Monday (15:00-17:00)	Stats 4
8	Measuring historical risk & return using statistical tools, Expected risk and return I	HRWJJ Ch.9	Monday (15:00-17:00)	Stats 5
9	Expected risk and return II	HRWJ Ch.9 & 10	Monday (15:00-17:00)	Stats 6
10	Expected risk and return III Class test		Monday (15:00-17:00)	Risk & Return I

	(covers statistics part only, lectures 1-7)	
11	No Lecture	Risk & Return II

Lecture Programme

The aim of the module is to provide an introduction to the fundamentals of finance and investment, presented within a coherent framework of analysis. Most of the analysis is set within the context of business finance with the emphasis placed on valuation, investment analysis, risk and the cost of capital. The financial statistics element of the module aims to provide an overview of the applications of basic statistics to a business organization, and their use in investment analysis.

The financial function deals with the financial consequences of the management's actions (or inaction). It is no more important than other functional areas such as marketing, operations or human resource management. All contribute to the general management of the business, the formulation of business strategy and the endeavor to keep the business on module. Failure "to get the numbers right" does, however have possibly fatal consequences for the firm, and all managers should therefore have at least a basic understanding of the financial aspects of the business. This module aims to give a basic grounding in the subject, which should encourage you to take an active interest in financial matters, read the financial press and ask the right questions.

Businesses need to obtain money to invest in buildings, equipment and stock, and perhaps also to finance credit given to customers. Before a company can generate cash income it first must invest. Those that provide the required finance (investors) will not provide it free of charge. A rational investor would want as good a return on their investment as they could obtain elsewhere for the same level of risk. Management must therefore assess whether the projects in which they wish to invest, and for which the funds are required, will generate sufficient cash inflows to give the required return. In an uncertain world they cannot, of module, be certain. The assessment and management of risk is a very important part of the general management task. It is not unique to finance.

Finance might very briefly be stated as dealing with:

- Decisions on investment in projects

- The raising of finance for these projects

- Decisions on choices between sources of finance

- The markets in which funds are raised and in which securities are dealt

- The management of the company's cash resources

Throughout finance problems arise where cash flows arise at different points in time. Such problems are similar to asking whether you would prefer £10,000 today or £22,000 in three years' time. Compound interest is used to adjust for the time value of money. Finance is based on cash flows. It recognizes the importance of cash flows as distinct from the accountant's notion of profit.

Assessment and Feedback Details

1. Class Test 1 worth 25%. Test will take place during December Exam Diet.

2. Class test 2 worth 25%. Date: Monday 24th of March 2025, 3-5pm. Marks/Feedback will be released on or before Monday 14th of April 2025.

3. Final exam worth 50%. Date: During 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:
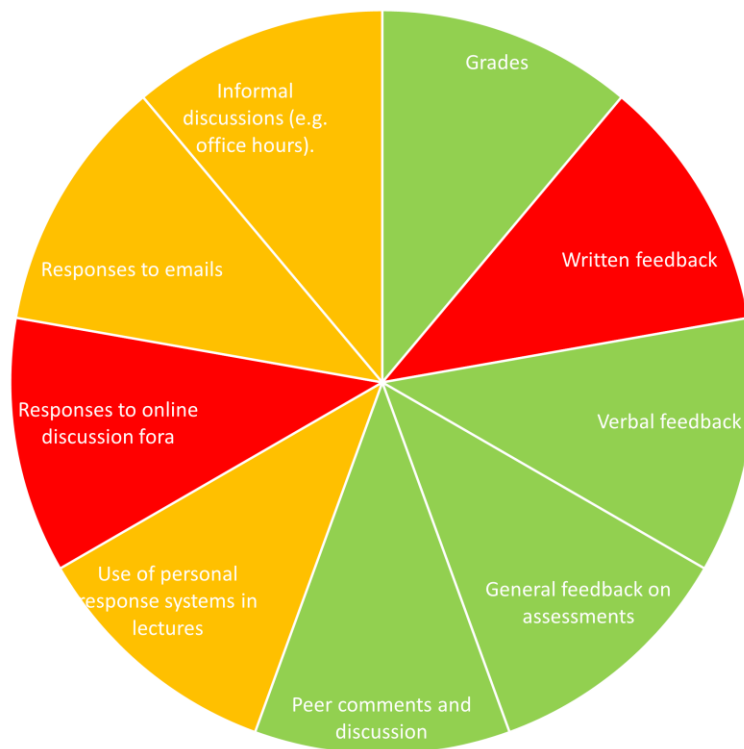
Artificial Intelligence

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

Please refer to the AG105 Myplace page to access the Reading List.

UG Module Manual (1st-3rd 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