

## Module specification

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**Refer to the module guidance notes for completion of each section of the specification.**

Module code	BUS7B76
Module title	Investment Analysis & Financial Econometrics
Level	7
Credit value	30
Faculty	Wrexham University: Faculty of Social and Life Sciences Bloomsbury Institute: School of Accounting and Finance
Module Leader	Dr Ashiq Zaman
HECoS Code	100828
Cost Code	GAMG

### Programmes in which module to be offered

Programme title	Is the module core or option for this programme
MSc Finance and Wealth Management	Core

### Pre-requisites

*None*

### Breakdown of module hours

Learning and teaching hours	33 hrs
Placement tutor support	0 hrs
Supervised learning e.g. practical classes, workshops	11 hrs
Project supervision (level 6 projects and dissertation modules only)	0 hrs
<b>Total active learning and teaching hours</b>	<b>44 hrs</b>
Placement / work based learning	0 hrs
Guided independent study	256 hrs
<b>Module duration (total hours)</b>	<b>300 hrs</b>

For office use only	
Initial approval date	21 July 2023
With effect from date	October 2023

<b>For office use only</b>	
Date and details of revision	
Version number	

## Module aims

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This module is designed to develop the students understanding of investment theory and practice; and will cover the investment environment, portfolio and capital market theories. In addition, the module aims to enable the student to understand and apply modern econometrics techniques, emphasising financial econometrics. This module focuses on statistical models, financial econometrics and understanding data.

On successfully completion of this module, students should demonstrate a good understanding of the investment environment; have a deep insight into the techniques used in investment analysis and valuation, and how they can be applied in real world situations; and be able to interpret and make investment decisions based upon an informed and critical approach. They should also be conversant with the empirical analysis of financial data, and ARCH and GARCH models as well as be able to use statistical software for econometric analysis.

## Module Learning Outcomes - at the end of this module, students will be able to:

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1	Critically discuss and debate the fundamental concepts of investment environment, stock analysis and valuation.
2	Significantly assess and analyse the fundamental principles of portfolio selections and capital market theory
3	Synthesis and undertake empirical analysis of financial market data.
4	Systematic use and application of econometric software as a tool of econometrical analysis.
5	Critically discuss and demonstrate the features and application of time-series and panel data modelling, volatility, correlation, non-stationarity and cointegration.

## Assessment

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Indicative Assessment Tasks:

This section outlines the type of assessment task the student will be expected to complete as part of the module. More details will be made available in the relevant academic year module handbook.

Assessment number	Learning Outcomes to be met	Type of assessment	Weighting (%)
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1	1,2	Examination	40%
2	3,4,5	Portfolio	60%

### Indicative Assessment 1: In-class test

This summative unseen closed-book in-class test will require a comprehensive understanding of the investment environment, investment alternatives, portfolio, and capital market theory.

### Indicative Assessment 2: Portfolio

This individual portfolio requires students to use appropriate econometric software to undertake empirical analysis of financial market data. The portfolio involves non-stationarity, cointegration, ARCH and GARCH modelling, and stock return analysis.

## Derogations

None

## Learning and Teaching Strategies

The module will be completed over one term.

Students will undertake 2-weeks of pre-reading and online activities.

The module is taught through lectures, seminars, and workshops.

**Lectures** provide a broad outline structure for each topic to be covered. Lectures offer a good way of covering a lot of information and, more importantly, of conveying ideas to many people at once.

**Seminars** enable students to undertake directed self-study and to answer questions and solve problems which are set by the lecturer. Students will present their answers and solutions within the seminar group. Seminars enable students to explore further the topics introduced in the lectures.

**Workshops** follow on from lectures and seminars. They are designed to enable students to work within a small group to perform set tasks (e.g., working on an exercise or case study). They reinforce proactive learning by providing opportunities for discussion and interaction.

The seminar/workshop groups are small, thereby enabling students to develop a deep understanding.

**Student digital literacies** are developed on this module through the use of:

- Online libraries and databases for gaining access to full-text journal articles and eBooks.
- Communication channels provided through the VLE and learning technology applications.
- Online group-work for planning, developing, improving, submitting and reflecting on collaborative work completed as part of the module.
- Assessment and feedback tools such as Multiple-Choice Tests/Quizzes, Turnitin and the VLE's Gradebook – enabling timely and detailed feedback on student work.

- Web-based Office 365 for creating and sharing documents, utilising the calendar, storing files, communicating with peers and teachers.
- Use of econometric software.
- Collecting financial data by using the appropriate database.

## Indicative Syllabus Outline

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- The Investment Environment, Investment Alternatives, and Indirect Investments
- Portfolio and Capital Market Theory
- Common Stock Analysis and Valuation
- Fixed-Income Securities Analysis, Valuation, and Management
- Asset Classes and Marketable Financial Securities Risk and Return
- Derivative Securities
- Simple Regression, Multiple Regression Analysis & Transformation of Variables
- Issues of Multicollinearity, Autocorrelation, Heteroscedasticity, Normality
- Models Using Time Series Data; Testing CAPM and Multifactor Models
- [G]Arch modelling
- Market Model
- Event Studies

## Indicative Bibliography:

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Please note the essential readings and other indicative readings are subject to annual review and update.

### Essential readings

Bodie Z., A. Kane and A. Marcus (2021), "Investments", 12<sup>th</sup> edition, McGraw-Hill International Edition

Gujarati, D.N., Porter, D.C. and Pal, M. (2021) *Basic econometrics*. India: McGraw-Hill Education.

### Other indicative readings

Brooks, C. (2020) *Introductory econometrics for finance*. Cambridge i pozostałe: Cambridge University Press.

Wooldridge, J.M. *et al.* (2021) *Introductory econometrics*. South Melbourne, Victoria, Australia: Cengage Learning Australia.

Campbell, J.Y., Lo, A.W. and MacKinlay, A.C. (2011) *The econometrics of Financial Markets*. New Dehli: New Age International (P) Ltd., Publ.

### Recommended websites:

[www.ft.com](http://www.ft.com) Financial Times.

[www.bloomberg.com](http://www.bloomberg.com) Bloomberg website. You can assess to Bloomberg online live programmes.

[www.investorlink.com](http://www.investorlink.com) This is a webpage linking to various homepages of financial issues.

[www.bondsonline.com](http://www.bondsonline.com) Try to apply what you've learned about bond evaluation!

[www.londonstockexchange.com](http://www.londonstockexchange.com) Exciting! London Stock Exchange

<http://www.accuinvest.com> Features stock data including quotes, charts, technical and fundamental analysis, stock news, and online investment training.

<http://www.investoreducation.org> Dedicated to facilitating greater understanding of investments and the financial markets among current and prospective investors.

<http://www.asset-analysis.com> Financial market tutorial covering equity analysis, bond market, futures, options, financial leverage, and more.

<http://www.fiscalreference.com> Web reference guide to financial information including links, articles, directory, and a glossary of terms.

<http://www.investments-guide.com> Describes investment markets and strategies, as well as guides to educational and financial news resources.

## **Journals**

Journal of Financial Econometrics

Journal of Financial Economics

The Journal of Finance

Journal of Financial and Quantitative Analysis

The Review of Financial Studies

Journal of Banking and Finance

Annual Review of Financial Economics

Financial Analysts Journal

Journal of Applied Corporate Finance

Journal of International Money and Finance

Journal of Accounting and Economics

Journal of International Economics

International Review of Financial Analysis

Journal of Econometrics

European Economic Review

The Journal of Portfolio Management

Journal of Monetary Economics

Family Business Review

## **Employability skills – the Wrexham Graduate**

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Each module and programme is designed to cover core Wrexham Graduate Attributes with the aim that each Graduate will leave Wrexham having achieved key employability skills as part of their study. The following attributes will be covered within this module either through the content or as part of the assessment. The programme is designed to cover all attributes and each module may cover different areas.

*Guidance, from the following list, delete the attributes that are not covered by this module*

**Core Attributes**

Engaged  
Enterprising  
Creative  
Ethical

**Key Attitudes**

Commitment  
Curiosity  
Resilience  
Confidence  
Adaptability

**Practical Skillsets**

Digital Fluency  
Organisation  
Leadership and Team working  
Critical Thinking  
Emotional Intelligence  
Communication