

IB9W0-15 Quantitative Tools for Data Analysis

27/28

Department

Warwick Business School

Level

Taught Postgraduate Level

Module leader

David Skeie

Credit value

15

Module duration

10 weeks

Assessment

20% coursework, 80% exam

Study location

University of Warwick main campus, Coventry

Description

Introductory description

To provide an introduction to advanced quantitative methods to students with quantitative backgrounds.

[Module web page](#)

Module aims

The module will equip students with an understanding of descriptive statistics and data presentation and enable them to apply the major tools needed for finance-related MSc level study and for the use of data analysis in the workplace.

Outline syllabus

This is an indicative module outline only to give an indication of the sort of topics that may be covered. Actual sessions held may differ.

The module will focus on a selection of the following topics:

- Linear Regression Models: OLS estimator. unbiasedness and efficiency, hypothesis testing
- Dummy Variables and Heteroskedasticity
- Limited Dependent Variable Models
- Time Series Data
- Panel Data Methods
- Additional advanced topic

Learning outcomes

By the end of the module, students should be able to:

- Demonstrate understanding of mathematical and statistical tools and techniques used in quantitative finance
- Understanding of basic econometrics
- Think quantitatively and critically
- Interpretation of data for decision making

Indicative reading list

[Reading lists can be found in Talis](#)

Interdisciplinary

Contents from several disciplines, such as finance and statistics, are included in the module.

Subject specific skills

Conduct statistical tests, such as t- tests and F- tests

Analyze different types of data structures using relevant models.

Transferable skills

Problem solving

Written Communication

Study

Study time

Type	Required
Lectures	10 sessions of 2 hours (13%)
Seminars	9 sessions of 1 hour (6%)
Total	150 hours

Type	Required
Private study	49 hours (33%)
Assessment	72 hours (48%)
Total	150 hours

Private study description

Private study to include preparation for assessment and pre-reading for lectures and seminars.

Costs

No further costs have been identified for this module.

Assessment

You do not need to pass all assessment components to pass the module.

Assessment group D5

Assessment component	Weighting	Study time	Eligible for self-certification
Mid-term test 45 minutes	20%	14 hours	No

Reassessment component is the same

Assessment component	Weighting	Study time	Eligible for self-certification
Centrally-timetabled examination (On-campus) 2hr written exam	80%	58 hours	No

- Answerbook Pink (12 page)
- Students may use a calculator

Weighting **Study
time**

**Eligible for self-
certification**

Reassessment component is the same

Feedback on assessment

Feedback via My.WBS

[Past exam papers for IB9W0](#)

Availability

Courses

This module is Core for:

- Year 1 of TIBS-N1F5 Postgraduate Taught Business and Finance