

IB9MD-15 Quantitative Methods II

26/27

Department

Warwick Business School

Level

Taught Postgraduate Level

Module leader

Jerker Denrell

Credit value

15

Module duration

10 weeks

Assessment

100% coursework

Study location

University of Warwick main campus, Coventry

Description

Introductory description

This module aims to provide doctoral students with a grounding in the set of advanced quantitative analysis methods that are increasingly necessary for conducting and publishing world-leading business and management science.

Module aims

- i) Understand the core suite of advanced quantitative analytics that are necessary to conduct world leading research in business and management.
- ii) Develop the ability to select the appropriate analytics to answer a given research question.
- iii) Prepare students for further more specialized study of quantitative analytics.

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.

Regression Modelling

OLS estimation

Classical assumptions and their failure

GLM
Interaction terms and interpretation
Basics of a multi-level regression
Clustering
Instrumental Variables
Intro to Bayesian Regression
OLS vs MLE

Learning outcomes

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

- Understand the link between research questions, scientific hypotheses, and data analysis.
- Design an analytic strategy to robustly test their hypotheses.
- Implement their analysis using appropriate software and evaluate the results.

Indicative reading list

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

Subject specific skills

Understand the link between research questions, scientific hypotheses, and data analysis.
Design an analytic strategy to robustly test their hypotheses.
Implement their analysis using appropriate software and evaluate the results.

Transferable skills

Problem solving abilities.
Communication skills.
Analytical skills.
Confidence as user of statistical software.

Study

Study time

Type	Required
Lectures	10 sessions of 3 hours (20%)
Private study	48 hours (32%)
Assessment	72 hours (48%)
Total	150 hours

Private study description

Self study and reflective learning.

Costs

No further costs have been identified for this module.

Assessment

You must pass all assessment components to pass the module.

Assessment group A1

	Weighting	Study time	Eligible for self-certification
Assessment component			
Individual essay	100%	72 hours	Yes (extension)

Reassessment component is the same

Feedback on assessment

Module leader feedback.

Availability

Pre-requisites

To take this module, you must have passed:

- All of
 - [IB9MH-15 Quantitative Methods I](#)

Courses

Course availability information is based on the current academic year, so it may change.
This module is Core optional for:

- Year 1 of TIBS-N1QY Postgraduate Taught Business and Management (Master of Research)