IB94X-15 Business Statistics

26/27

Department
Warwick Business School
Level
Taught Postgraduate Level
Module leader
Caspar Kaiser
Credit value
15
Module duration
5 weeks
Assessment
100% coursework
Study location
University of Warwick main campus, Coventry

Description

Introductory description

This module will introduce students to the R data analysis package and to a range of statistical analysis tools. Students will get hands on experience with analysing real datasets in R, with extensive support and guidance from teaching staff. They will learn how to identify the correct statistical tools to use to answer different business related questions, and how to interpret the results.

Module web page

Module aims

The module is designed to provide a foundation in the analysis and presentation of quantitative data and covers the basic elements of statistics that are essential for business analysis. It is also designed to introduce students to the R statistical programming language. Much of the material is required knowledge for other core and optional modules.

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.

Introduction to R
Visualising Data in R
The General Linear Model: t-tests
Estimation: Confidence Intervals
Correlation and Simple Linear Regression
The General Linear Model: Regression
The General Linear Model: ANOVA
The General Linear Model: Repeated Measures
The Generalised Linear Model: Logistic Regression

Learning outcomes

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

- Demonstrate comprehensive understanding of null hypothesis significance testing and contrast this with the estimation approach
- Plan an analysis of, and think critically about, data

Indicative reading list

Reading lists can be found in Talis

Subject specific skills

Conduct reproducible statistical analysis using the general and generalised linear model
Construct 4* publication quality visualisations of data

Transferable skills

Written communication.
Problem solving.

Study

Study time

Type	Required
Online learning (independent)	9 sessions of 2 hours (12%)
Other activity	18 hours (12%)
Private study	46 hours (31%)
Assessment	68 hours (45%)
Total	150 hours

Private study description

Self study to include pre-reading for lectures and preparation for lab sessions

Other activity description

Laboratory Sessions 9 x 2hours

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 A4

	Weighting	Study time	Eligible for self-certification
Assessment component			
End of term assignment (2500 words)	80%	54 hours 30 minutes	Yes (extension)
Reassessment component is the same			
Assessment component			
Mid-term assignment (1500 words)	20%	13 hours 30 minutes	Yes (extension)
Reassessment component is the same			

Feedback on assessment

A mixture of hand-picked general comments plus a bespoke comment per question.

Availability

Post-requisite modules

If you pass this module, you can take:

- IB98D-15 Advanced Data Analysis

Courses

This module is Core for:

- Year 1 of TIBS-NI01 Business Analytics and Artificial Intelligence