



Module Definition Form (MDF)

Module code: MOD009690	Version: 1 Date Amended: 01/Mar/2024
-------------------------------	---------------------------------------------

1. Module Title
Business Statistics and Data

2a. Module Leader
Mark Bentley

2b. School
School of Management

2c. Faculty
Faculty of Business and Law

3a. Level
5

3b. Module Type
Standard (fine graded)

4a. Credits
30

4b. Study Hours
300

5. Restrictions			
Type	Module Code	Module Name	Condition
Pre-requisites:	None		
Co-requisites:	None		
Exclusions:	None		
Courses to which this module is restricted:			

LEARNING, TEACHING AND ASSESSMENT INFORMATION

6a. Module Description

The Business Statistics and Data module provides you with the essential knowledge and skills to harness the power of data analytics in making informed business decisions. In today's data-driven business environment, understanding statistical concepts and data analysis techniques is crucial for professionals across various domains. This module equips you with the fundamentals of business statistics and data analytics, enabling them to extract meaningful insights from data, identify trends, make data-driven decisions, and drive business performance and innovation.

Through real-world case studies and interactive discussions, you'll develop the skills to align supply chain objectives with overall business strategy, capitalize on market opportunities, and effectively respond to industry challenges.

6b. Outline Content

Introduction to Business Statistical and Data Analysis

- Understanding the role of data analytics in business decision-making.
- Overview of statistical concepts and their relevance in business applications.
- Ethical considerations in handling and using business data.

Data Collection and Preprocessing

- Identifying data sources and data types in the business context.
- Data cleaning and validation techniques.
- Data transformation and preparation for analysis.
- Descriptive Statistics for Business Analysis

Measures of central tendency and dispersion.

- Data visualization techniques (e.g., bar charts, histograms, scatter plots).
- Summarizing and interpreting business data.
- Inferential Statistics and Hypothesis Testing

Understanding sampling methods and sampling distributions.

- Conducting hypothesis tests and drawing conclusions.
- Making business decisions based on statistical inferences.
- Business Data Analysis with Statistical Software

Introduction to statistical software (e.g., R, Python, Excel).

- Hands-on exercises in data analysis using statistical tools.
- Market Research and Performance Evaluation

Analysing customer feedback and survey data.

- Evaluating business performance metrics using data analysis.
- Identifying opportunities for business growth and improvement.
- Predictive Analytics and Forecasting in Business

Integrating data analysis into strategic decision-making.

- Fostering a culture of data-driven innovation in the organization.
- Real-world examples of successful data-driven business initiatives.

6c. Key Texts/Literature

The reading list to support this module is available at: <https://readinglists.aru.ac.uk/>

6d. Specialist Learning Resources

Python, R, Excel and Power BI

7. Learning Outcomes (threshold standards)

No.	Type	On successful completion of this module the student will be expected to be able to:
1	Knowledge and Understanding	Apply relevant statistical theoretical concepts and techniques to resolve complex business challenges
2	Knowledge and Understanding	Show awareness of ethical considerations related to handling and using business data, adhering to best practices in data analysis to ensure data privacy and accuracy.
3	Knowledge and Understanding	Utilise data analysis to evaluate customer feedback, survey data, and business performance metrics, identifying opportunities for growth and improvement.
4	Knowledge and Understanding	Demonstrate proficiency in Basic Statistical Concepts: Participants will gain a solid understanding of fundamental statistical concepts, including measures of central tendency, dispersion, and probability, which are relevant to various business applications.
5	Intellectual, practical, affective and transferrable skills	Recognize the different technology toolchains which can be used for business analysis and integration into business operations
6	Intellectual, practical, affective and transferrable skills	Use Statistical Software for Data Analysis: Participants will become proficient in using statistical software tools, such as R, Python, or Excel, to conduct data analysis efficiently.

8a. Module Occurrence to which this MDF Refers				
Year	Occurrence	Period	Location	Mode of Delivery
2025/6	ZZF	Template For Face To Face Learning Delivery		Face to Face

8b. Learning Activities for the above Module Occurrence			
Learning Activities	Hours	Learning Outcomes	Details of Duration, frequency and other comments
Lectures	24	1-6	2 hours per week over 12-week period of Course Content, Theoretical Models by Course Module Leader.
Other teacher managed learning	24	1-6	2 hours per week over 12-week period student led session,
Student managed learning	252	1-6	Canvas Site Activity. Quiz. Discussion. Subject and Topic Reading.
TOTAL:	300		

9. Assessment for the above Module Occurrence					
Assessment No.	Assessment Method	Learning Outcomes	Weighting (%)	Fine Grade or Pass/Fail	Qualifying Mark (%)
010	Practical	1-3	40 (%)	Fine Grade	30 (%)
Student Group presentation 10 minutes					
Assessment No.	Assessment Method	Learning Outcomes	Weighting (%)	Fine Grade or Pass/Fail	Qualifying Mark (%)
011	Coursework	4-6	60 (%)	Fine Grade	30 (%)
3000 word written assignments					

In order to pass this module, students are required to achieve an overall mark of 40% (for modules at levels 3, 4, 5 and 6) or 50% (for modules at level 7*).

In addition, students are required to:

- (a) achieve the qualifying mark for each element of fine graded assessment as specified above**
- (b) pass any pass/fail elements**

[* the pass mark of 50% applies for all module occurrences from the academic year 2024/25 – see Section 3a of this MDF to check the level of the module and Section 8a of this MDF to check the academic year]