

Liverpool John Moores University

Title: BUSINESS MATHEMATICS AND STATISTICS
Status: Definitive
Code: **4001BUSAF** (117238)
Version Start Date: 01-08-2017

Owning School/Faculty: Academic Portfolio
Teaching School/Faculty: Academic Portfolio

Team	Leader
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Academic Level: FHEQ4 **Credit Value:** 24 **Total Delivered Hours:** 80
Total Learning Hours: 240 **Private Study:** 160

Delivery Options

Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	52
Tutorial	26

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Test	AS1	Diagnostic test	10	.5
Report	AS2	Coursework: written report utilising quantitative and qualitative data	30	
Exam	AS3	Examination	60	2

Aims

1. To introduce different data types and the approaches required for analysis.
2. To enable the student to appreciate the role of statistical and mathematical

methods in a business environment.

3. To develop an awareness of the scope and limitations of quantitative analysis.
4. To enable the student to formulate and evaluate problems, interpret patterns and find trends in the data.
5. To facilitate basic forecasting and hypothesis testing for data sets.
6. To develop student skills in linear programming techniques.
7. To use computer packages for data analysis.

Learning Outcomes

After completing the module the student should be able to:

- 1 Identify different data types, manipulate data and carry out simple statistical analysis.
- 2 Present data using appropriate graphs and packages.
- 3 Calculate and use various location and dispersion measures and explore data to enable decision making.
- 4 Formulate, test and interpret hypotheses using suitable significance tests.
- 5 Undertake analysis of time series and bivariate data to facilitate a simple forecast.
- 6 Calculate a range of basic financial measures.
- 7 Resolve linear programming problems.
- 8 Use index numbers in business problems.
- 9 Produce a statistical report.

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

TEST	1				
REPORT	2	5	9		
EXAMINATION	3	4	6	7	8

Outline Syllabus

Introduction to data types, primary and secondary data sources, data presentation.

Measures of location and dispersion and their uses.

Confidence intervals, simple hypothesis tests to include the Chi-squared test.

Regression and correlation.

Time series analysis.

Probability.

Financial mathematics, compounding, discounting and investment appraisal.

Linear programming.

Index numbers.

Use of the Excel computer package.

Learning Activities

Lectures, tutorials and private study.

Notes

This module introduces basic mathematical and statistical concepts and relates them to business and accounting situations and provides a foundation for further studies in business and finance.

The test is a diagnostic assessment; the coursework provides an opportunity for formative assessment, whilst the examination is the terminal summative assessment.