

Liverpool John Moores University

Title: BUSINESS MATHEMATICS AND STATISTICS
Status: Definitive
Code: **4001KFBAF** (118500)
Version Start Date: 01-08-2011

Owning School/Faculty: Liverpool Business School
Teaching School/Faculty: Kaplan Financial Birmingham

Team	Leader
James Fraser	
Graham Padgett	

Academic Level: FHEQ4 **Credit Value:** 24.00 **Total Delivered Hours:** 80.00
Total Learning Hours: 240 **Private Study:** 160

Delivery Options

Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	52.000
Tutorial	26.000

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Test	AS1	Diagnostic test	10.0	0.50
Report	AS2	Coursework: written report utilising quantitative and qualitative data	30.0	
Exam	AS3	Examination	60.0	2.00

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.

References

Course Material	Book
Author	OAKSHOTT, LA
Publishing Year	2008
Title	ESSENTIAL QUANTITATIVE METHODS FOR BUSINESS MANAGEMENT AND FINANCE
Subtitle	
Edition	
Publisher	PALGRAVE MACMILLAN
ISBN	9780230218185

Course Material	Book
Author	ANDERSON, DR, SWEENEY, DJ AND WILLIAMSON, TA
Publishing Year	2008
Title	STATISTICS FOR BUSINESS & ECONOMICS
Subtitle	
Edition	
Publisher	CENCAGE
ISBN	0324566345

Course Material	Book
Author	CURWIN, J AND SLATER, R
Publishing Year	2008
Title	QUANTITATIVE METHODS FOR BUSINESS DECISIONS
Subtitle	
Edition	
Publisher	CENCAGE
ISBN	1844805743

Course Material	Book
Author	SWIFT, L
Publishing Year	2005
Title	QUANTITATIVE METHODS FOR BUSINESS MANAGEMENT AND FINANCE
Subtitle	
Edition	
Publisher	MACMILLAN
ISBN	97814003935281

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.