Liverpool John Moores University

Title: BUSINESS MATHEMATICS
Status: Definitive
Code: **4003BUSHN** (108181)
Version Start Date: 01-08-2011

Owning School/Faculty: Liverpool Business School
Teaching School/Faculty: Liverpool Business School

Team		Leader
Matthew Veasey		Y

Academic Level:	FHEQ4	**Credit Value:**	12.00	**Total Delivered Hours:**	49.00
Total Learning Hours:	120	**Private Study:**	71		

Delivery Options
Course typically offered: Semester 1

Component	Contact Hours
Tutorial	12.000
Workshop	36.000

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	AS1	Written report (1,000 words)	50.0	
Exam	AS2	Examination	50.0	1.00

Aims

1. To enable the student to appreciate the role of various mathematical techniques in a business environment.
2. To develop an awareness of the scope and limitations of quantitative analysis.
3. To develop mathematical skills to assist with financial appraisal.
4. To appreciate the use and purpose of linear programming techniques.
5. To facilitate the analysis of time series data.
6. To understand the use of index numbers.
7. To use computer packages to aid mathematical techniques.

Learning Outcomes

After completing the module the student should be able to:

1   Present data using appropriate graphs and tables.
2   Resolve linear programming problems.
3   Forecast from a set of time series data.
4   Calculate a range of financial measures.
5   Calculate and use index numbers.
6   Produce a mathematical report.

Learning Outcomes of Assessments

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

Report	1	3	6
EXAM	2	4	5

Outline Syllabus

Basic mathematical techniques.
Time series analysis using either the additive or the multiplicative model.
Financial mathematics, compound interest, discount factors and investment appraisal using net present value and internal rate of return
Calculation and use of index numbers.
Linear programming to obtain either maximum profit or minimum cost in a production environment.
Use of the Excel computer package.

Learning Activities

Workshops and drop in surgery sessions.

References

Course Material	Book
Author	Oakshott, L
Publishing Year	2003
Title	Essential Quantitative Methods for Business Management and Finance
Subtitle	
Edition	2nd edition
Publisher	Palgrove

Notes

This module introduces basic mathematical concepts and relates them to a business environment. It also includes some solutions to commonly encountered business problems and simple financial appraisal.