



Mathematics

MFQ-1-101

Faculty of Business, Computing and
Information Management

Academic Year 2008-2009

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1. UNIT DETAILS

Unit Title:	Mathematics
Unit Level:	Foundation
Unit Reference Number:	MFQ-1-101
Credit Value:	15
Student Study Hours:	150
Contact Hours:	60
Private Study Hours:	90
Course(s):	BCIM International Foundation Year for Business or Computing
Year and Semester	2008/2009 Semester 1
Unit Coordinator:	Carrie Rutherford
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Subject Area:	Dept of Maths, Stats and Foundation Studies
Summary of Assessment Method:	Open-book class tests

2. SHORT DESCRIPTION

Basic maths and statistics unit aimed at students on the IFC to bring each student's maths level to a consistent and appropriate standard.

3. AIMS OF THE UNIT

The aim of this unit is to provide students with an understanding of basic mathematics and to develop their ability to cope with statistical data. It is designed to bring their level of mathematical knowledge to the standard required to undertake further study in the fields of business or computing. The mathematical concepts covered will be encountered in many fields of study besides those mentioned above, and in everyday life. The course will:

- review basic mathematical processes
- focus on common abstract concepts in quantitative studies
- familiarise students with mathematical terminology in English
- reduce the fear many students have about the subject
- offer further practice of some of the skills introduced in the English Language & Study Skills units in a different context.

4. LEARNING OUTCOMES

4.1 Knowledge and Understanding

- dealing with arithmetic problems involving whole numbers, fractions and decimals
- “rounding off” to a given number of decimals or significant figures
- performing calculations involving percentages and ratios
- applying rounding rules to the results of calculations
- becoming familiar with simple rules of algebra

4.2 Intellectual Skills

- handling expressions involving powers or roots of a variable
- drawing graphs and solving problems involving linear and non-linear equations
- solving pairs of simultaneous equations

4.3 Practical Skills

- using an extended set of calculator functions

4.4 Transferable Skills

- representing data statistically

5. ASSESSMENT OF THE UNIT

The unit will be assessed by three time-constrained assignments at different stages of the syllabus. The assignments will be in form of open-book class tests and the weighting given is 35%, 30% and 35%. An overall mark of 40% will be required to pass the unit, with a minimum of 30% in each element.

6. FEEDBACK

Feedback will normally be given to students 15 working days after the submission of an assignment. Students can obtain their marks by logging in to the unit's Blackboard site.

7. INTRODUCTION TO STUDYING THE UNIT

7.1 Overview of the Main Content

Algebra

Business and computing maths

Statistics

7.2 Overview of Types of Classes

You will have one four-hour maths class each week. This will consist of theory and practice, and assessment in certain weeks (see timetable). There will be a 20-minute break during the session.

7.3 Importance of Student Self-Managed Learning Time

There will be four stages to your learning:

1. Preparation – the teaching programme in Section 8 tells you what topics we will be covering week by week. You should always prepare for the next lesson by reading the appropriate material.
2. Lectures – the weekly session will consist of several short demonstrations where you will be shown how to tackle certain problems.
3. Exercises – after each demonstration, you will be given problems to try yourself. This is the opportunity for students to practice the various techniques introduced. As much as possible, the teacher will give assistance to individual students if and when required.
4. Homework – each week you will be given homework from the textbook as well as homework and quizzes on the web-based self-study course that accompanies the unit. It is essential that students complete all the set exercises during their private study time. **Success will not be achieved** in this Unit just by reading about the subject. **Success will only come** from repeated practice of the techniques involved.

8. THE PROGRAMME OF TEACHING, LEARNING AND ASSESSMENT

<u>week</u>	<u>topic</u>	<u>reference</u>
1	Introduction to the unit	
2	Algebra	Chapter 1
3	Linear Equations	Chapter 2
4	More on Equations	Chapter 3
5	test 1	
6	Proportions, percentages and ratios	Chapter 4
7	Sets	Chapter 5
8	Introduction to probability	Chapter 6
9	test 2	
10	Summarising and presenting data	Chapter 7
11	Measures of location	Chapter 8
12	Measures of spread	Chapter 9
13	Revision	
14	test 3	
15	Reading Week	

9. LEARNING RESOURCES

9.1 Core Materials

- Scientific Calculator
- Bending, Foundation Mathematics and Statistics, Thomson/Cengage
- www.MathXL.com (you will be given an access code during the lesson in Week 1)