

**COURSE SPECIFICATION DOCUMENT**

<b>Academic School / Department:</b>	Business and Economics
<b>Programme:</b>	BA Business Administration
<b>FHEQ Level:</b>	3
<b>Course Title:</b>	Fundamental of Mathematics
<b>Course Code:</b>	MTH 3000
<b>Course Leader:</b>	Ana Oliveira
<b>Student Engagement Hours:</b>	160
Lectures:	40
Seminar / Tutorials:	20
Independent / Guided Learning:	100
<b>Semester:</b>	Fall, Spring, Summer
<b>Credits:</b>	12 UK CATS credits 6 ECTS credits 3 US credits

**Course Description:**

This is a comprehensive course dealing with the ordinary processes of arithmetic and number theory, elementary algebra, basic concepts of data organisation and probability, functions and manipulation of functions (including graphing, inverse, exponential and logarithmic functions) and a simple introduction to basic calculus (derivatives of functions and simple integration).

**Prerequisites:**

**None**

**Aims and Objectives:**

This course gives the student confidence and practice in dealing with a comprehensive range of basic mathematical processes including arithmetic and number theory, elementary algebra, functional manipulation and an introduction to basic calculus.

**Programme Outcomes:**

Ai, Bi, Ci

A detailed list of the programme outcomes are found in the Programme Specification.

This is located at the archive maintained by the Academic Registry and found at:

<http://www.richmond.ac.uk/programme-and-course-specifications/>

**Learning Outcomes:**

By the end of this course, successful students should be able to:

- Have an understanding and increased confidence of the elements of number manipulation and of basic algebra
- Have an understanding of the concept of probability
- Have an understanding of the different types of data and its organisation
- Have an understanding of functions, its manipulation and how to graph different types of functions
- Be able to grasp concepts of basic calculus

**Indicative Content:**

- Arithmetic of numbers: whole numbers, fractions and decimal
- Percentages and ratios; powers & indices
- Simplifying algebraic expressions
- Solutions of linear and quadratic equations
- Introduction to statistical terms, types of data and its organisation
- Probability
- Functions: composition, inverse and graphs
- Introduction to differentiation and integration

**Assessment:**

This course conforms to the Math Assessment Norms approved at Academic Board (formerly Learning & Teaching Policy Committee) and located at:

<http://www.richmond.ac.uk/admitted-students/>

**Teaching Methodology:**

Course material is presented and analysed in the following ways:

- a) Formal presentation of topics and worked exercises.
- b) Self-learning assignments and directed mathematical exercises.
- c) Participation in individual and group investigations.
- d) Where appropriate, students will be introduced to solution aids, such as hand-held calculators, mathematical tables and computer software.

**Bibliography:**

