

## COURSE SPECIFICATION DOCUMENT

**Academic School / Department:** Richmond Business School

**Programme:** Various

**FHEQ Level:** 3

**Course Title:** Fundamentals of  
Mathematics

**Course Code:** MTH 3000

**Student Engagement Hours:** 120

Lectures: 45

Seminar / Tutorials: 22.5

Independent / Guided Learning: 52.5

**Credits:** 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 Registry and found at:  
<https://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 University Assessment Norms approved at Academic Board and located at: <https://www.richmond.ac.uk/university-policies/>

### **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.

### **Indicative Text(s):**

A. Croft and R. Davison, "Foundation Mathematics", Pearson, 7th Ed., 2020.

### **Sites**

See syllabus for complete reading list

**Change Log for this CSD:**

Nature of Change	Date Approved & Approval Body (School or AB)	Change Actioned by Registry Services
Course description	27th Nov 17	Y
Aims and objectives	27th Nov 17	
Learning outcomes	27th Nov 17	
Indicative content	27th Nov 17	
Indicative Text	Sept 2019	
Contact hours aligned with EAP	Mar 2023	
Revision – annual update	May 2023	