COURSE SPECIFICATION DOCUMENT

School	Business
Programme:	BSc (Hons) Accounting and Finance
	BA (Hons) Business Management
	BA (Hons) Economics
	BA (Hons) Fashion Management and Marketing
	BA (hons) Finance and Investment
	BA (Hons) Marketing
	BA (Hons) Psychology
***FHEQ* Level:**	**4**
Course Title:	**Probability and Statistics I**
Course Code:	MTH 4110
Course Leader:	**Ana Oliveira**
Student Engagement Hours:	160
Lectures:	45
Seminar / Tutorials:	15
Independent / Guided Learning:	100
Semester:	Fall/Spring/Summer
Credits:	16 UK CATS credits
	8 ECTS credits
	4 US credits

Course Description:
An introductory course in probability primarily designed for business economics and psychology majors. The course coverage will include: descriptive statistics, elementary probability theory, random variables and expectations, discrete probability distributions (Binomial and Poisson distributions), continuous probability distribution (Normal distribution), linear regression analysis and correlations, elementary hypothesis testing and Chi-square tests, non-parametric methods and SPSS lab sessions targeting applications of statistical concepts to business, economics and psychology and interpretations of hardcopies. All practical work will be produced using SPSS statistical software.

Prerequisites: MTH3000 or MTH3111

Aims and Objectives:
The course aims to provide students with an understanding of a number of topics in probability and statistics. We will encourage students to develop a keen interest in the subject based on their specific majors. In particular, the course will help students develop the right statistical vocabulary, understand and apply essential ideas and concepts of statistics, perform some of the most useful statistical methods such as using statistical tables and SPSS statistical software, be able to discern which statistical method is most appropriate in a given situation and be aware of the assumptions and pitfalls of the various statistical methods used. Students should be able to interpret and explain meaningfully an SPSS statistical output.

Business: B4, D2, D3 Psychology:
Bi, Biii, Cii

Programme Outcomes:

BSc (Hons) Accounting and Finance: A2,B2, C1, D2
BA (Hons) Business Management: B4, D2, D3
BA (Hons) Fashion Management and Marketing: B4, D2, D3
BA (Hons) Economics: A2, A4, D
BA (Hons) Finance and Investment: A4, B3, B4, C1, C2, D2, D5
BA (Hons) Marketing: B4, D2, D3
BA (Hons) Psychology: B1, B3, C2

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/admitted-students/programme-and-course-specifications/

Learning Outcomes:
By the end of this course, successful students should:

- Have a broad understanding of the concept of probability, random variables, discrete and continuous probability distribution and their applications in solving problems

- Have a broad understanding of how to organise raw data, use statistical software and interpret results

- Have a broad understanding of the principles of linear regression analysis and how to estimate model parameters by using least square method and interpret model parameters using examples of business, economics and psychology

- Have a broad understanding of the principles of non-parametric methods, their viability and usefulness

Indicative Content:

Introduction to statistical terms and definitions, types of data and its organisation Measures of Location and Measures of Dispersion

Probability

Binomial Distribution
Poisson Distribution

Normal Distribution and applications
Hypothesis Testing

Simple Linear
Regression Non-
Parametric Methods

Use of statistical software throughout

Assessment:
This course conforms to the Richmond University Maths Assessment Norms approved at Learning and Teaching Policy Committee found at:
http://www.richmond.ac.uk/wp-content/uploads/2014/10/ALL-ASSESSMENT-NORMS-CATEGORIES-with-descriptions-Jan-2014.pdf .

Teaching Methodology:

The Course will consist of interactive learning sessions of material presented using PowerPoint slides, small group discussions, and individual projects.

Bibliography:

See syllabus for complete reading list

IndicativeText(s):

Mann, P.S., "*Introductory Statistics*", 7th Edition, Wiley 2010

Pallant Julie, "*SPSS Survival Manual*", 3rd Edition, Open University Press, 2007

Journals

Web Sites

Please Note: The core and the reference texts will be reviewed at the time of designing the semester syllabus

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Change Log for this CSD:

Major or Minor Change?	Nature of Change	Date Approved & Approval Body (School or LTPC)	Change Actioned by Academic Registry
Minor	Updated Programme Outcome List	11th Nov 2016	