# **COURSE SPECIFICATION DOCUMENT**

Academic School: Richmond Business School

**Programme:** Economics

Finance & Investment

FHEQ Level: 5

**Course Title:** Econometrics I - Principles

Course Code: ECN 5215

Total Hours: 120

Timetabled Hours: 45
Guided Learning Hours: 0
Independent Learning Hours: 75

Credits: 12 UK CATS credits

6 ECTS credits
3 US credits

# **Course Description:**

This course focuses on applications of statistical techniques to economic decision-making, both at micro and macro level. It examines case studies in economic analysis and business decision-making.

# **Prerequisites:**

ECN 4105 Introduction to Microeconomics ECN 4110 Introduction to Macroeconomics MTH 4120 Probability and Statistics I

# **Aims and Objectives:**

This course aims to provide an introduction to econometric methods, concentrating on single equation systems and applications of multiple regression analysis. Furthermore, the course examines the classical linear regression model, its applications and assumptions.

# **Programme Outcomes:**

ECN: A3, A4, A5, B2, B3, D

FININV: A4, B3, B4, C1, C2, D2, D3, D5

A detailed list of the programme outcomes is found in the Programme Specification. This is maintained by Registry and located at: https://www.richmond.ac.uk/programme-and-course-specifications/

# **Learning Outcomes:**

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

### **Knowledge and Understanding**

- Demonstrate an understanding of the theory underlying inferential statistics, and its application to single variable situations.
- Demonstrate an understanding of the theory and assumptions underlying the classical linear regression model (CLRM).
- Develop an ability to apply multivariate analysis to economic data and interpret the results.

#### Subject-Specific Skills

- Demonstrate an ability to apply the CLRM to simple two-variable situations.
- Apply multiple regression models to different situations, using different mathematical forms and dummy variables.

### Numeracy

- Perform practical research involving collecting data
- Specify multiple regression models
- Use computer software to estimate the appropriate model
- Interpretation of data and understanding of statistical significance
- Make appropriate interpretations and conclusions

#### **Indicative Content:**

- Nature, scope and methods.
- Review of statistical inference.
- Simple linear regression model.
- Multiple regression.
- Different mathematical forms of regression model.
- Dummy variables.
- Selecting appropriate models

#### **Assessment:**

This course conforms to the University Assessment Norms approved at Academic Board and located at: <a href="https://www.richmond.ac.uk/university-policies/">https://www.richmond.ac.uk/university-policies/</a>

# **Teaching Methodology:**

The course will be taught using a variety of methods including lectures, directed and undirected reading, case studies, project work, and discussions.

# Indicative Text(s):

Gujarati, D.N, and Porter, D.C. (2014) Essentials of Econometrics, New York: McGraw-Hill.

Gujarati, D.N. (2011), Econometrics by Example, Basingstoke: Palgrave Macmillan.

#### **Journals**

American Economic Review, Econometrica

# Web Sites

Economist (www.economist.com)

See syllabus for complete reading list

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

Change Log for this CSD:

Nature of Change	Date Approved &	Change
	Approval Body (School	Actioned by
	or LTPC)	Academic
		Registry
Various updates as part of the UG	AB Jan 2022	
programme review		
Revision – annual update	May 2023	
Total Hours Updated	April 2024	