

## **COURSE SPECIFICATION DOCUMENT**

**NOTE:** ANY CHANGES TO A CSD MUST GO THROUGH ALL OF THE RELEVANT APPROVAL PROCESSES, INCLUDING LTFC.

<b>Academic School/Department:</b>	Business and Economics
<b>Programme:</b>	BA (Hons) Economics with Combined Studies BA (Hons) Business Administration with Combined Studies
<b>FHEQ Level:</b>	6
<b>Course Title:</b>	Econometrics
<b>Course Code:</b>	ECN 6200
<b>Course Leader:</b>	Nick Wilkinson
<b>Student Engagement Hours:</b>	<b>120</b>
Lectures:	30
Seminar / Tutorials:	15
Independent / Guided Learning:	75
<b>Semester:</b>	Fall/Spring
<b>Credits:</b>	12 UK CATS credits 6 ECTS credits 3 US credits

### **Course Description:**

Theory and applications of statistical techniques relating to economic decision-making both at micro and macro level. Model building involving testing hypotheses, parameterization, and forecasting. Case studies in business decision-making, computer models of national economic forecasts.

**Prerequisites:** ECN 4105, ECN 4110, MTH 5120

### **Aims and Objectives:**

1. Provide an introduction to econometric methods, concentrating on single equation systems and applications of multiple regression analysis.
2. Examine the classical linear regression model, its applications and assumptions.
3. Examine the implications of violations of the above assumptions

### **Programme Outcomes**

A2, A3, A4  
B2, B3  
D

A detailed list of the programme outcomes are found in the Programme Specification. This is located at the Departmental/Schools page of the portal.

### **Learning Outcomes:**

Upon completion of this course, a successful student should be able to

#### **Subject knowledge and understanding**

1. Demonstrate an understanding of the theory underlying inferential statistics, and its application to single variable situations.
2. Explain the theory and assumptions underlying the classical linear regression model (CLRM).
3. Develop an understanding of the implications of violations of these assumptions and how to address them.
4. Determine the appropriate methodology to use in conducting an empirical study involving econometric analysis.
5. Interpret the output of computer software programs designed to perform regression analysis.
6. Interpret and evaluate the results of empirical studies reported in academic journals.

#### **Subject-specific skills**

1. Demonstrate an ability to apply the CLRM to simple two-variable situations.
2. Apply multiple regression models to different situations, using different mathematical forms and dummy variables.
3. Perform practical research involving collecting data, specifying multiple regression models, use computer software to estimate the appropriate model, and make the appropriate interpretations and conclusions.

#### **Other skills**

1. Demonstrate effective oral and written communication skills in a range of media.
2. Develop strong analytical skills through listening and reflecting.
3. Conduct quantitative research to test hypotheses, parameterize models, and make forecasts.

#### **Numeracy**

1. Estimate regression coefficients and their standard errors.
2. Estimate coefficients of determination

#### **Indicative Content:**

1. Nature, scope and methods.
2. Review of statistical inference.
3. Simple linear regression model.
4. Multiple regression.
5. Different mathematical forms of regression model.
6. Dummy variables.
7. Violations of assumptions – multicollinearity.

8. Violations of assumptions – autocorrelation.
9. Violations of assumptions – heteroscedasticity.

**Assessment:**

This course conforms to the Richmond University Standard Assessment Norms approved at Academic Council on June 28, 2012.

**Teaching Methodology:**

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

**Bibliography:**

Gujarati, D., 2009. *Basic Econometrics*. New York: McGraw-Hill.  
Gujarati, D., 2011. *Econometrics by Example*. London: Palgrave Macmillan.

**Journals**

American Economic Review  
Econometrica

**Web Sites**

Economist ([www.economist.com](http://www.economist.com))

*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