

**Queen Mary, University of London**

**BSc. (Econ), ECN-202 Introductory Econometrics**

**Dr Marika Karanassou**

roomCB310, tel.:020 7882-5090 email: M.Karanassou@qmul.ac.uk
---

## **READING LIST & LECTURE SCHEDULE**

### **Aim (Broad Educational Purpose)**

This course provides a broad introduction to the theory and practice of econometrics. Econometrics is concerned with the systematic study of economic phenomena using observed data. The aim is to help students use statistical methods to estimate the parameters of economic models, and test economic hypotheses.

### **Objectives (Specific Learning Outcomes)**

On successful completion, students should

- be familiar with random vectors and probability distributions
- thoroughly understand the classical linear regression model
- be familiar with the least squares and maximum likelihood estimation techniques
- be able to estimate linear regression models
- be able to test statistical assumptions and economic hypotheses
- be familiar with simple time series models

### **Teaching Arrangements**

Throughout semester 2, there is a weekly lecture combined with a one hour class which is compulsory and starts the 2nd week of the semester. Students are provided with detailed lecture notes, problem sets, and solutions. It is essential that students work on each problem set at home before it is solved in the class. In addition, during the last four weeks of the semester there will be a weekly one hour class where students will be given an applied econometrics exercise and will learn how to use Microfit, a well known econometrics software package.

### **Course Assessment**

There will be two compulsory tests (before the reading week and during the last week of semester 2) which will count 30% towards the course unit mark. In May, students will sit a two hour formal examination which will count for 70% of the course unit mark.

## **Required Reading**

Robert S. Pindyck & Daniel L. Rubinfeld (1991), *Econometric Models & Economic Forecasts*, McGraw-Hill.

## **Essential Reading**

Peter Kennedy (1992), *A Guide to Econometrics*, Blackwell. (Not a textbook, but an excellent explanation.)

## **Lecture Schedule**

1. Elementary Statistics; Random Vectors and their Distributions.  
[Pindyck & Rubinfeld ch. 2, Lecture Notes 1]
2. Estimation; the Method of Least Squares; the Method of Maximum Likelihood.  
[Pindyck & Rubinfeld ch. 2, Lecture Notes 2]
3. The Bivariate Classical Linear Regression Model.  
[Pindyck & Rubinfeld ch. 1 and 3, Lecture Notes 3]
4. Matrix Algebra.  
[Lecture Notes 4]
5. The Multivariate Classical Linear Regression Model.  
[Pindyck & Rubinfeld ch. 4, Lecture Notes 5]
6. Testing the Assumptions of the CLRM.  
[Pindyck & Rubinfeld ch. 6, Lecture Notes 6]
7. Using the Multiple Regression Model.  
[Pindyck & Rubinfeld ch. 5 and 9.1, Lecture Notes 7]
8. Introduction to Time-Series Models.  
[Pindyck & Rubinfeld ch. 16.1, 16.2, 17.1, and 17.2; Lecture Notes 8]