Econometric Theory I

**Module Code:** ECO00019I  **Credits:** 10  **Year:** 2  **Term:** 1

**Contact Hours:** 18 Lectures, 4 Practicals (22 contact hours)

**Module Organiser:** Dr M Thornton

**Aims:**
- To introduce the student to a number of methods and models central to the understanding of Econometrics

**Objectives:**
On successfully completing the module the student will be able to:
- Define, illustrate and utilise the basic results in linear and matrix algebra, such as linear spaces, bases, orthogonality, inverses and determinants, eigenvalues/vectors and linear and quadratic forms
- Define, illustrate and utilise the basic results in statistical theory, such as moment generating functions, modes of convergence, maximum likelihood estimation
- Combine this knowledge to develop an understanding of multivariate random variables
- Explore the relationship between the multivariate normal, Chi-square, t and F distributions

**Assessment:**
There will be a 2 hour unseen examination in the Spring Term.

**Pre-requisites:**
Using Mathematics in Economics (ECO00003C)
Introduction to Statistical Theory (ECO00006C)
Economics 1 (ECO00001C)

**Co-requisite:**
Econometrics for Economists (ECO00003I)

**Main references:**
Students are advised to ensure that they have access to either of the general texts,


Other specific reading will be announced, where applicable, during the course.