THE UNIVERSITY OF AUCKLAND
Te Whare Wānanga o Tāmaki Makaurau
NEW ZEALAND

BUSINESS SCHOOL

Course Outline 2017
ECON 721: ECONOMETRICS I (15 POINTS)

Semester 1 (1173)

Course Prescription

Core econometrics including theory and applications. The development of the classical linear regression model and extensions to the most general case. Focus on microeconometric applications. The methods of maximum likelihood and GMM and associated methods.

Programme and Course Advice

Prerequisites: Entrants to the postgraduate programmes in Economics are required to have passed ECON 301 (Advanced Microeconomics), 311 (Advanced Macroeconomics) and 321 (Advanced Econometrics).

Students enrolled for the MA, MCom, BA(Hons) or BCom(Hons) degrees are required to pass either this course, or ECON 723 Econometrics II, or ECON 726 Microeconometrics.

Goals of the Course

The purpose of this course is to provide students with a graduate level treatment of basic topics in econometrics. Because of the foundational nature of the material, the emphasis is on theoretical underpinnings and unifying themes, to be supplemented with some computer work. Applications will focus on microeconometric topics. ECON 723 is an ideal complement and focus on time series topics.

Learning Outcomes

By the end of this course it is expected the student will be able to:

1. demonstrate an ability to obtain the principal results for a general formulation of the regression model;
2. analyse variants of this model which arise in a variety of cross section and panel data contexts;
3. determine the consequences of particular types of misspecification for the properties of parameter estimates.

Content Outline

- Review of matrix algebra and the classical regression model.
- Extension to the case of non-spherical disturbances. Generalised least squares. Some examples, including the SUR model.
- Extremum and generalised method of moments related estimators.
- Limited dependent variable.
- Panel data models. Alternative specifications and appropriate estimation methods.

Learning and Teaching

This course will be taught in the first semester. There will be 3 hours of lectures and 1 hour tutorial per week:

Wednesday 12.00pm to 02.00pm
Friday 12.00am to 02.00pm

The class size is typically about 20 students.

Teaching Staff

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Learning Resources

The following book is well adapted for this course:

Cameron and Trivedi, *Microeconometrics, Methods and Applications*, 2005, Cambridge University Press.

The following books are also useful:

W.H. Greene, *Econometric Analysis*, 7th edition, Prentice Hall, 2012.
(other editions are also suitable.)

R. Davidson and J.G. MacKinnon, *Econometric Theory and Methods*, Oxford University Press, 2004.

J. Johnston and J. DiNardo, *Econometric Methods*, 4th edition, McGraw-Hill, 1997.

T. Amemiya, *Advanced Econometrics*, Blackwell, 1985.

F. Hayashi, *Econometrics*, Princeton University Press, 2000.

P.A. Ruud, *An Introduction to Classical Econometric Theory*, Oxford University Press, 2000.

J.S. Chipman, *Advanced Econometric Theory*, Routledge, 2011.

The lectures will also be supplemented with detailed notes.
The econometric software STATA and a programming software (similar to Matlab) will be used and available on the university network.

Assessment

The final grade will be assessed on 50% Assignments and 50% research project.

More details will be provided at lectures and on CANVAS.

Plussage does ***not*** apply.

Learning Outcomes	Assignments	Research Project
1	X	
2	X	X
3	X	X