

# ECON 3001 APPLIED ECONOMETRICS

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**Credit Points** 10

**Legacy Code** 200054

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**Description** This unit builds on the econometric methods of Economic Modelling. The focus is on the linear model in econometrics in its application to economic and financial time series. The emphasis is on learning by doing in small group workshops.

**School** Business

**Discipline** Econometrics

**Student Contribution Band** HECS Band 4 10cp

Check your HECS Band contribution amount via the Fees ([https://www.westernsydney.edu.au/currentstudents/current\\_students/fees/](https://www.westernsydney.edu.au/currentstudents/current_students/fees/)) page.

**Level** Undergraduate Level 3 subject

**Pre-requisite(s)** MATH 2002 OR  
ECON 3004

## Learning Outcomes

On successful completion of this subject, students should be able to:

1. Choose the appropriate econometric model to estimate in terms of: a. The theoretical foundations of the model; b. The empirical questions to be addressed, and; c. The nature of the data used to estimate the model
2. Identify variations on the classical linear model when using data which is both cross sectional and time series.
3. Explain issues of modelling with endogenous regressors.
4. Estimate and interpret and test models with limited dependent variables.
5. Estimate and interpret linear econometric models using modern time series methods.
6. Estimate models with panel data and show how they are related to modern policy evaluation.
7. Have developed proficiency in the use of STATA for econometric modelling.

## Subject Content

Review of Topics in Regression Analysis

Discrete Dependent Variables:

Binary Response Model

The Tobit Model

Instrumental Variable Estimation:

Omitted Variables/Two Stage Least Squares

Errors in Variables Problem

Testing for Endogeneity and Overidentification

Regression Analysis with Time Series:

OLS, Serial Correlation and Heteroscedasticity

Distributed Lag Models/Unit Root

Spurious Regression/Error Correction Model

Teaching Periods