



# ECON8040

## Applied Econometrics

Session 1, Online-scheduled-weekday 2025

*Department of Economics*

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## General Information

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Unit convenor, lecturer, tutor

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Credit points

10

Prerequisites

(Admission to GradCertResBus or GradDipResBus) or ECON6034 or STAT6175

Corequisites

Co-badged status

ECON7035

Unit description

This unit enables students with basic statistical knowledge to upgrade their understanding to a practical level where they can apply knowledge of econometrics to empirical analysis. By successfully completing this unit, students are able to develop an econometric model suitable for the objective of their analysis, estimate the model using an appropriate estimation method, and draw valid inferences from the estimation results. The unit starts with a brief review of the standard multiple linear regression model and the OLS estimation method. It then relaxes the standard assumptions and investigates alternative estimation methods that are valid under the new circumstances.

## Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at <https://www.mq.edu.au/study/calendar-of-dates>

## Learning Outcomes

On successful completion of this unit, you will be able to:

**ULO1:** Develop an econometric model suitable for the objective of analysis.

**ULO2:** Estimate the model using an appropriate estimation method.

**ULO3:** Interpret the estimation results and draw valid inferences.

**ULO4:** Critically analyse the econometric methods covered in the unit.

## General Assessment Information

### Late Assessment Submission Penalty (written tasks):

Unless a Special Consideration request has been submitted and approved, a 5% penalty (of the total possible mark) will be applied each day a written assessment is not submitted, up until the 7th day (including weekends). After the 7th day, a grade of '0' will be awarded even if the assessment is submitted.

For any late submissions of time-sensitive tasks, such as scheduled tests/exams, performance assessments/presentations, and/or scheduled practical assessments/labs, students need to submit an application for [Special Consideration](#).

## Assessment Tasks

Name	Weighting	Hurdle	Due
<a href="#"><u>Skills development Quiz</u></a>	25%	No	07/04/2025
<a href="#"><u>Formal and observed learning: Test</u></a>	25%	No	19/05/2025
<a href="#"><u>Formal and observed learning: Exam</u></a>	50%	No	Exam Period

### Skills development Quiz

Assessment Type <sup>1</sup>: Problem set

Indicative Time on Task <sup>2</sup>: 20 hours

Due: **07/04/2025**

Weighting: **25%**

The purpose of this assessment is to ensure your acquisition of the concepts and skills that are foundational to applied econometrics. You will be given a quiz before the mid session break and will receive valuable feedback on your progress. **Skills in focus:** - Discipline knowledge - Analytical thinking **Deliverable:** Quiz Individual assessment

On successful completion you will be able to:

- Estimate the model using an appropriate estimation method.
- Interpret the estimation results and draw valid inferences.

## Formal and observed learning: Test

Assessment Type <sup>1</sup>: Problem set

Indicative Time on Task <sup>2</sup>: 20 hours

Due: **19/05/2025**

Weighting: **25%**

The purpose of this assessment is to develop an understanding of econometric techniques and theory and how they can be applied to solve practical problems in economics. This test will provide students with feedback on their progress before the final assessment. You will be given a take home diagnostic test with a similar format to the final exam. All questions and data sets will be randomised. **Skills in focus:** - Problem solving - Discipline Knowledge **Deliverable:** Test Individual assessment

On successful completion you will be able to:

- Develop an econometric model suitable for the objective of analysis.
- Interpret the estimation results and draw valid inferences.
- Critically analyse the econometric methods covered in the unit.

## Formal and observed learning: Exam

Assessment Type <sup>1</sup>: Examination

Indicative Time on Task <sup>2</sup>: 30 hours

Due: **Exam Period**

Weighting: **50%**

The purpose of this assessment is for students to demonstrate their ability to choose, implement and interpret the results of econometric procedures taught in Applied Econometrics. You will participate in a 2-hour exam held during the University Examination period. Important information about the exam will be made available on the unit iLearn page. You should also review the [MQ Exams website](#) for general tips. **Deliverable:** Formal exam Individual assessment

On successful completion you will be able to:

- Develop an econometric model suitable for the objective of analysis.
- Estimate the model using an appropriate estimation method.
- Interpret the estimation results and draw valid inferences.
- Critically analyse the econometric methods covered in the unit.

<sup>1</sup> If you need help with your assignment, please contact:

- the academic teaching staff in your unit for guidance in understanding or completing this type of assessment
- the [Writing Centre](#) for academic skills support.

<sup>2</sup> Indicative time-on-task is an estimate of the time required for completion of the assessment task and is subject to individual variation

## Delivery and Resources

See iLearn.

## Unit Schedule

Week	Topic
1	Introduction/Probability
2	Estimation and Hypothesis Testing
3	Simple Linear Regression
4	Multiple Linear Regression
5	Prediction/Heteroscedasticity
6	Specification
7	Endogeneity
8	Endogeneity
9	Binary Dependent Variables
10	Panel Data
11	Stationary Time Series
12	Dynamic Causal Effects/Structural Breaks
13	Stochastic Trends

[Stock, J. H. and Watson, M. W. \(2019\) Introduction to Econometrics, Global Edition, 4th edition, Pearson](#) is used for most of the unit.

## Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central \(https://policies.mq.edu.au\)](https://policies.mq.edu.au). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- [Academic Appeals Policy](#)

- [Academic Integrity Policy](#)
- [Academic Progression Policy](#)
- [Assessment Policy](#)
- [Fitness to Practice Procedure](#)
- [Assessment Procedure](#)
- [Complaints Resolution Procedure for Students and Members of the Public](#)
- [Special Consideration Policy](#)

Students seeking more policy resources can visit [Student Policies](https://students.mq.edu.au/support/study/policies) (<https://students.mq.edu.au/support/study/policies>). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

To find other policies relating to Teaching and Learning, visit [Policy Central](https://policies.mq.edu.au) (<https://policies.mq.edu.au>) and use the [search tool](#).

## Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: <https://students.mq.edu.au/admin/other-resources/student-conduct>

## Results

Results published on platform other than [eStudent](#), (eg. iLearn, Coursera etc.) or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in [eStudent](#). For more information visit [connect.mq.edu.au](https://connect.mq.edu.au) or if you are a Global MBA student contact [globalmba.support@mq.edu.au](mailto:globalmba.support@mq.edu.au)

## Academic Integrity

At Macquarie, we believe [academic integrity](#) – honesty, respect, trust, responsibility, fairness and courage – is at the core of learning, teaching and research. We recognise that meeting the expectations required to complete your assessments can be challenging. So, we offer you a range of resources and services to help you reach your potential, including free [online writing and maths support](#), [academic skills development](#) and [wellbeing consultations](#).

## Student Support

Macquarie University provides a range of support services for students. For details, visit <http://students.mq.edu.au/support/>

## Academic Success

[Academic Success](#) provides resources to develop your English language proficiency, academic writing, and communication skills.

- [Workshops](#)
- [Chat with a WriteWISE peer writing leader](#)
- [Access StudyWISE](#)

- [Upload an assignment to Studiosity](#)
- [Complete the Academic Integrity Module](#)

The Library provides online and face to face support to help you find and use relevant information resources.

- [Subject and Research Guides](#)
- [Ask a Librarian](#)

## Student Services and Support

Macquarie University offers a range of [Student Support Services](#) including:

- [IT Support](#)
- [Accessibility and disability support](#) with study
- Mental health [support](#)
- [Safety support](#) to respond to bullying, harassment, sexual harassment and sexual assault
- [Social support including information about finances, tenancy and legal issues](#)
- [Student Advocacy](#) provides independent advice on MQ policies, procedures, and processes

## Student Enquiries

Got a question? Ask us via the [Service Connect Portal](#), or contact [Service Connect](#).

## IT Help

For help with University computer systems and technology, visit [http://www.mq.edu.au/about\\_us/offices\\_and\\_units/information\\_technology/help/](http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/).

When using the University's IT, you must adhere to the [Acceptable Use of IT Resources Policy](#). The policy applies to all who connect to the MQ network including students.

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Unit information based on version 2025.03 of the [Handbook](#)