

# **ECON7035**

# **Applied Econometrics**

Session 1, In person-scheduled-weekday, North Ryde 2023

Department of Economics

# Contents

General Information	2
Learning Outcomes	2
General Assessment Information	3
Assessment Tasks	3
Delivery and Resources	5
Policies and Procedures	7

#### Disclaimer

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### **General Information**

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Credit points

10

Prerequisites

Admission to MRes

Corequisites

Co-badged status

ECON8040

Unit description

The aim of this unit is to enable MRes students to upgrade their basic econometric knowledge and skills to a level where they can independently design an empirical research project and use relevant econometric methods to draw valid conclusions, with clear understanding of advantages and limitations of the methods involved. To that end, students will be introduced to various econometric methods and their properties under different 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:** Identify and develop a relevant 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:** Understand and replicate the empirical results reported in some academic articles that are prescribed by the lecturer.

### **General Assessment Information**

Late Assessment Submission Penalty (written assessments)

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. Submission time for all written assessments is set at 11.55 pm. A 1-hour grace period is provided to students who experience a technical concern.

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
Lecture interaction	10%	No	Weekly from Week 2
Assignment	30%	No	Week 14
Tutorial Exercises	20%	No	Weekly from Week 2
Take home test	40%	No	Week 8 and Week 12

### Lecture interaction

Assessment Type 1: Participatory task Indicative Time on Task 2: 5 hours

Due: Weekly from Week 2

Weighting: 10%

Lectures will include embedded exercises that engage students in the material being taught and ensure that students grasp essential concepts.

On successful completion you will be able to:

- Interpret the estimation results and draw valid inferences.
- Understand and replicate the empirical results reported in some academic articles that are prescribed by the lecturer.

### **Assignment**

Assessment Type 1: Report

Indicative Time on Task 2: 15 hours

Due: Week 14 Weighting: 30%

A written report comprising the application of technical skills and theoretical concepts acquired in the unit to a simple research question in economics.

On successful completion you will be able to:

- · Identify and develop a relevant econometric model suitable for the objective of analysis.
- Estimate the model using an appropriate estimation method.
- · Interpret the estimation results and draw valid inferences.

### **Tutorial Exercises**

Assessment Type 1: Problem set Indicative Time on Task 2: 10 hours

Due: Weekly from Week 2

Weighting: 20%

A weekly assessment (from Week 2) that covers material from previous lectures, with an emphasis on the most recent work, and ensures acquisition of the concepts and skills necessary to understand and apply the unit material.

On successful completion you will be able to:

- Interpret the estimation results and draw valid inferences.
- Understand and replicate the empirical results reported in some academic articles that are prescribed by the lecturer.

### Take home test

Assessment Type 1: Quiz/Test

Indicative Time on Task 2: 20 hours

Due: Week 8 and Week 12

Weighting: 40%

Two diagnostic tests (worth 20% each) of technical skills and applied knowledge acquired in the unit up until the week of the test.

On successful completion you will be able to:

- · Identify and develop a relevant econometric model suitable for the objective of analysis.
- Interpret the estimation results and draw valid inferences.

 Understand and replicate the empirical results reported in some academic articles that are prescribed by the lecturer.

- the academic teaching staff in your unit for guidance in understanding or completing this type of assessment
- · the Writing Centre for academic skills support.

# **Delivery and Resources**

#### Classes

- Online lectures will be available each week. Lectures will include links to datasets and
  reference material. Lectures will also include embedded questions which must be
  answered by students before the weekly deadline. The lectures cover all the material
  necessary to pass the unit, including some material that is not available in other formats.
  Consequently, students are expected to study the lectures closely.
- There is a tutorial class held in each week except Week 1. Students must register in a
  tutorial class. Changes to tutorial enrolments may only be made using the online system
  subject to available capacity. The Unit Convenor cannot make enrolment changes on
  behalf of students. Changes to tutorial enrolments generally take up to 24 hours to be
  reflected on iLearn.
- Students must complete and submit the tutorial exercises each week before the deadline, which will be prior to the first scheduled class each week. The tutorial exercises will be discussed in class.
- The timetable for classes can be found on the University website: <a href="http://www.timetables.mq.edu.au/">http://www.timetables.mq.edu.au/</a>
- Students are expected to study all lectures, attempt the lecture exercises and tutorial
  exercises, attend the tutorial classes, discuss the unit material both in-class and online,
  and read the text. It is important that students identify problems that they are having with
  the unit material each week. If a reasonable but unsuccessful effort has been made to
  solve a problem, then the student should seek help from the tutor during the tutorial.
  Outside class time, the best way to get help with a problem is to post it on the online
  discussion forum.
- It is expected that students will spend an average of approximately 10 hours per week

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

<sup>&</sup>lt;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

working on this unit (including class time).

#### Required and Recommended texts and/or materials

• Stock, J. H. and Watson, M. W. (2019) Introduction to Econometrics, Global Edition, 4th edition, Pearson.

Additional useful textbooks and resources.

- Hill, C. H., Griffiths, W. E. and Lim, G. C. (2018) Principles of Econometrics (5th ed.)
   Wiley.
- Wooldridge, J. M., Wadud, M., Lye, J. and Joyeux, R. (2021) Introductory Econometrics (2nd Asia-Pacific ed.) Cengage.
- Gujarati, D.N., and Porter, D.C. (2010) Essentials of Econometrics (4th ed.) McGraw-Hill.
- A list of prescribed reading will be developed on the website as the unit progresses.
- The data sets used in the textbook and in lectures will be provided on the website.

#### **Technology Used and Required**

- The main software package used is Gretl (<a href="https://gretl.sourceforge.net/">https://gretl.sourceforge.net/</a>). This software is available for use on AppStream and may be freely downloaded for use elsewhere. The Microsoft Windows version is available at <a href="https://gretl.sourceforge.net/win32/">https://gretl.sourceforge.net/win32/</a>. A Mac version is available at <a href="http://gretl.sourceforge.net/osx.html">http://gretl.sourceforge.net/win32/</a>. A Mac their repositories or download the rpm or source from <a href="http://gretl.sourceforge.net/">https://gretl.sourceforge.net/</a>.
- The use of a spreadsheet will often be helpful for tasks in this unit. Microsoft Excel will be used during tutorials and is available for students to use off-campus at <a href="https://students.mg.edu.au/support/technology/software/microsoft">https://students.mg.edu.au/support/technology/software/microsoft</a>. For students who don't wish to use Microsoft Excel, free alternatives include OpenOffice (<a href="http://www.openoffice.org">http://www.openoffice.org</a>),
   LIbreOffice (<a href="https://www.libreoffice.org/">https://www.libreoffice.org/</a>) and Gnumeric (<a href="https://www.gnumeric.org/">http://www.gnumeric.org/</a>, <a href="https://www.gnumeric.org/">https://portableapps.com/apps/office/gnumeric\_portable</a>).
- Course material is available on the learning management system (iLearn).
- Announcements will be made regularly on iLearn. Students should ensure that these
  announcements, and posts on the online discussion forum, are forwarded to their email
  account, which they should check regularly. Staff may also occasionally directly email
  students. Students must check their email daily.
- Students will need access to an internet-connected computer capable of streaming video and (if they are attending online tutorials) participating in Zoom meetings.

### **Policies and Procedures**

Macquarie University policies and procedures are accessible from Policy Central (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 <u>Student Policies</u> (<u>https://students.mq.edu.au/support/study/policies</u>). 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.e du.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 <a href="mailto:eStudent">eStudent</a>, (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 <a href="mailto:eStudent">eStudent</a>. For more information visit <a href="mailto:ask.mq.edu.au">ask.mq.edu.au</a> or if you are a Global MBA student contact <a href="mailto:globalmba.support@mq.edu.au">globalmba.support@mq.edu.au</a>

# Academic Integrity

At Macquarie, we believe <u>academic integrity</u> – 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 <u>online writing and maths support</u>, academic skills development and wellbeing consultations.

## Student Support

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

### The Writing Centre

The Writing Centre 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 AskMQ, or contact Service Connect.

### IT Help

For help with University computer systems and technology, visit <a href="http://www.mq.edu.au/about\_us/">http://www.mq.edu.au/about\_us/</a> 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.