ECON2041

Introductory Econometrics

Session 1, In person/Online-scheduled-weekday, North Ryde 2022

Department of Economics

Contents

General Information

Unit convenor and teaching staff
Unit Convenor
Dr Paul Crosby
paul.crosby@mq.edu.au
Contact via email

Chris Heaton
chris.heaton@mq.edu.au

Credit points
10

Prerequisites
50cp at 1000 level or above including ((STAT150 or STAT1250 or STAT170 or STAT1170 or STAT171 or STAT1371) and (ECON110 or ECON111 or ECON1020))

Corequisites

Co-badged status

Unit description
This unit introduces some basic econometric techniques employed by economists in the analysis of economic relationships. These techniques are also used extensively in marketing and finance. Topics covered will usually include: estimation and hypothesis testing; simple and multiple regression; prediction; the interpretation and evaluation of regression models, including an elementary discussion of nonlinear modelling, heteroscedasticity, auto-correlation, multicollinearity and specification error; and the use of categorical or qualitative data in regression models.

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:** Analyse and apply key statistical concepts, including probability distributions, parameters and estimators, the sampling distribution of an estimator, point and interval estimation, and hypothesis testing.

ULO2: Specify, estimate and interpret a regression model.

ULO3: Summarise and interpret the estimation results, and draw valid inferences utilising hypothesis tests.

ULO4: Critically evaluate the assumptions of a classical (or standard) regression model and the consequences of violation of the assumptions.

ULO5: Employ an econometric software program to solve an econometric problem.

General Assessment Information

Late submissions of assessments

Unless a Special Consideration request has been submitted and approved, no extensions will be granted. There will be a deduction of 10% of the total available assessment-task marks made from the total awarded mark for each 24-hour period or part thereof that the submission is late. Late submissions will only be accepted up to 96 hours after the due date and time.

No late submissions will be accepted for timed assessments – e.g., quizzes, online tests.

Table 1: Penalty calculation based on submission time

Submission time after the due date (including weekends)	Penalty (% of available assessment task mark)	Example: for a non-timed assessment task marked out of 30
<24 hours	10%	10% x 30 marks = 3-mark deduction
24-48 hours	20%	20% x 30 marks = 6-mark deduction
48-72 hours	30%	30% x 30 marks = 9-mark deduction
72 – 96 hours	40%	40% x 30 marks = 12-mark deduction
>96 hours	100%	Assignment won't be accepted

Special Consideration

To request an extension on the due date/time for a timed or non-timed assessment task, you must submit a Special Consideration application. An application for Special Consideration does not guarantee approval.

The approved extension date for a student becomes the new due date for that student. The late submission penalties above then apply as of the new due date.

Assessment Tasks

Name	Weighting	Hurdle	Due
Tutorial exercises	10%	No	Weekly (from week 2)
Assignment 1	20%	No	Week 8
Assignment 2	20%	No	Week 12
Online final examination	50%	No	University Exam Period

Tutorial exercises

Assessment Type [1]: Quiz/Test
Indicative Time on Task [2]: 10 hours
Due: **Weekly (from week 2)**
Weighting: **10%**

Each tutorial assessment covers material from previous lectures, with an emphasis on the most recent work.

On successful completion you will be able to:

• Specify, estimate and interpret a regression model.

• Summarise and interpret the estimation results, and draw valid inferences utilising hypothesis tests.

• Employ an econometric software program to solve an econometric problem.

Assignment 1

Assessment Type [1]: Problem set
Indicative Time on Task [2]: 16 hours
Due: **Week 8**
Weighting: **20%**

A set of questions requiring both calculation and short written answers. It will be based on material covered in the lectures prior to the submission deadline.

On successful completion you will be able to:

- Specify, estimate and interpret a regression model.

- Summarise and interpret the estimation results, and draw valid inferences utilising hypothesis tests.

- Employ an econometric software program to solve an econometric problem.

Assignment 2

Assessment Type [1]: Problem set
Indicative Time on Task [2]: 16 hours
Due: **Week 12**
Weighting: **20%**

A set of questions requiring both calculation and short written answers. It will be based on material covered in the lectures prior to the submission deadline.

On successful completion you will be able to:
- Specify, estimate and interpret a regression model.

- Summarise and interpret the estimation results, and draw valid inferences utilising hypothesis tests.

- Employ an econometric software program to solve an econometric problem.

Online final examination

Assessment Type [1]: Examination
Indicative Time on Task [2]: 35 hours
Due: **University Exam Period**
Weighting: **50%**

A 2 hour open book examination, consisting of short answer questions that require both calculation and written responses, will be held during the University Examination Period

On successful completion you will be able to:
- Analyse and apply key statistical concepts, including probability distributions, parameters and estimators, the sampling distribution of an estimator, point and interval estimation, and hypothesis testing.

- Summarise and interpret the estimation results, and draw valid inferences utilising hypothesis tests.

- Critically evaluate the assumptions of a classical (or standard) regression model and the consequences of violation of the assumptions.

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[1] 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.

[2] 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

Required Textbook:

Students will need to consult this textbook:

- Wooldridge, J. M., Wadud, M., Lye, J. and Joyeux, R. (2021) Introductory Econometrics (2nd Asia-Pacific ed.) Cengage.

Additional useful textbooks and resources:

- Hill, C. H., Griffiths, W. E. and Lim, G. C. (2018) Principles of Econometrics (5th ed.) Wiley.
- Gujarati, D.N., and Porter, D.C. (2010) Essentials of Econometrics (4th ed.) McGraw-Hill.
- Stock, J.H., and Watson, M.W. (2015) Introduction to Econometrics (3rd ed.) Pearson Education.

A list of prescribed readings will be developed on the unit iLearn site as the unit progresses. The data sets used in the textbook, lectures and tutorials will also be provided on the unit iLearn site.

Technology Used and Required

The main software package used in ECON2041 is Gretl (http://gretl.sourceforge.net). This software is available for use on AppStream and may be freely downloaded for use elsewhere. The Microsoft Windows version is available at http://gretl.sourceforge.net/win32. A Mac version is available at http://gretl.sourceforge.net/osx. Linux users should check their repositories or download the rpm or source from http://gretl.sourceforge.net.

The use of a spreadsheet will often be helpful for tasks in this unit. Microsoft Excel will be used during tutorials and is available to all students (https://students.mq.edu.au/support/technology/software/microsoft). For students who don't wish to use Microsoft Excel, free alternatives include OpenOffice (http://www.openoffice.org), LIbreOffice (https://www.libreoffice.org/) and Gnumeric (http://www.gnumeric.org/, https://portableapps.com/apps/office/gnumeric_portable).

The unit uses the learning management system (iLearn) that can be accessed via iLearn.mq.ed

u.au. All of the learning materials and important information related to ECON2041 will be provided and can be accessed via iLearn. Students are expected to check the ECON2041 iLearn site 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 participating in Zoom meetings.

Learning and Teaching Activities

Lectures will be available each week. Lecture slides and the data sets used for examples in the lectures will also be available on iLearn. 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.

Tutorials will be held weekly, starting from Week 2. Students must register in a tutorial class and generally will not be permitted to attend a tutorial class other than the one in which they are registered. 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. After the completion of the last scheduled class of the week, students will be permitted to re-attempt the tutorial. Details of the marking scheme will be made available on iLearn.

The timetable for classes can be found on the University website: http://www.timetables.mq.edu.au.

Students are expected to study all lectures, attempt the tutorial exercises, attend the tutorial classes, discuss the unit material both in-class and online, read the text, and attempt the set exercises. 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.

Note: *the intended delivery mode may need to change after the start of the session due to the evolving covid situation and students need to ensure they keep up with **iLearn** Announcements made during the session accordingly.*

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 Student 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) 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 ask.mq.edu.au or if you are a Global MBA student contact 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/

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 Enquiries

Got a question? Ask us via AskMQ, 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/.

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.