ECON2032

Econometric Principles

Session 2, Online-scheduled-weekday 2022

Department of Economics

Contents

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General Information

Unit convenor and teaching staff
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Credit points
10

Prerequisites
ECON241 or ECON2041 or STAT272 or STAT2372

Corequisites

Co-badged status

Unit description
This unit provides an introduction to modern econometric techniques. Its principal objectives are to extend knowledge beyond the classical regression model and to develop literacy in methods that are commonly used to analyse data in economics, finance and business. The topics covered may include: heteroscedasticity, stochastic regressors, limited dependent variables, time-series regression and panel data analysis. This unit will be of value to any students who are interested in how useful information may be inferred from economic data in a statistically valid way.

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 describe econometric concepts and theories.

ULO2: Estimate econometric models and test parametric hypotheses using techniques that are appropriate for the problem at hand.

ULO3: Diagnose and resolve problems relating to the violation of standard assumptions in econometric models, and make conclusions and recommendations regarding your solutions.

ULO4: Critique the appropriateness of alternative econometric techniques in practical applications to appropriate problems.

General Assessment Information

<u>Late Assessment Submission Penalty (written assessments)</u>

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 11.55pm. 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
Tutorial exercises (online)	15%	No	Weeks 3, 5, 7, 9 and 11
Mid-session Test	15%	No	Week 8
Assignment	20%	No	Week 12
Final Examination online	50%	No	University Examination Period

Tutorial exercises (online)

Assessment Type [1]: Problem set
Indicative Time on Task [2]: 5 hours
Due: **Weeks 3, 5, 7, 9 and 11**
Weighting: **15%**

Tutorial exercise quiz in W3 is weighted 5% and designed to ensure that you quickly review key concepts in maths and statistics taught in prerequisite units which will be necessary for you to progress through the new material in this unit; the remaining Tutorial exercise quizzes in W5, 7, 9, 11 are worth 2.5% each. Each quiz will be a problem set to be completed online at the end of the week in a designated time window. The tutorial classes will help you prepare for the quizzes.

On successful completion you will be able to:
- Identify and describe econometric concepts and theories.
- Estimate econometric models and test parametric hypotheses using techniques that are appropriate for the problem at hand.

- Diagnose and resolve problems relating to the violation of standard assumptions in econometric models, and make conclusions and recommendations regarding your solutions.
- Critique the appropriateness of alternative econometric techniques in practical applications to appropriate problems.

Mid-session Test

Assessment Type [1]: Quiz/Test
Indicative Time on Task [2]: 3 hours
Due: **Week 8**
Weighting: **15%**

The test assesses the work covered in lectures up to the submission deadline, and consists of a set of questions to be answered on iLearn. It may consist of true-false, multiple choice, numerical and simple answer questions.

On successful completion you will be able to:
- Identify and describe econometric concepts and theories.
- Estimate econometric models and test parametric hypotheses using techniques that are appropriate for the problem at hand.
- Diagnose and resolve problems relating to the violation of standard assumptions in econometric models, and make conclusions and recommendations regarding your solutions.
- Critique the appropriateness of alternative econometric techniques in practical applications to appropriate problems.

Assignment

Assessment Type [1]: Modelling task
Indicative Time on Task [2]: 19 hours
Due: **Week 12**
Weighting: **20%**

Students will be given an applied econometric problem to work on and will be required to submit a written report on their investigation of the problem. Students may also be required to submit relevant computer files.

On successful completion you will be able to:

- Identify and describe econometric concepts and theories.
- Estimate econometric models and test parametric hypotheses using techniques that are appropriate for the problem at hand.
- Diagnose and resolve problems relating to the violation of standard assumptions in econometric models, and make conclusions and recommendations regarding your solutions.
- Critique the appropriateness of alternative econometric techniques in practical applications to appropriate problems.

Final Examination online

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

A two-hour open book examination, consisting of multiple choice, numerical, and short answer questions, will be held during the University Examination Period.

On successful completion you will be able to:

- Identify and describe econometric concepts and theories.
- Estimate econometric models and test parametric hypotheses using techniques that are appropriate for the problem at hand.
- Diagnose and resolve problems relating to the violation of standard assumptions in econometric models, and make conclusions and recommendations regarding your solutions.
- Critique the appropriateness of alternative econometric techniques in practical applications to appropriate problems.

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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

Unit Webpage

Useful information and some course material will be made available on the learning management system (iLearn): ilearn.mq.edu.au. Visit the homepage regularly for new information, course material and announcements.

Technologies used and required

(1) Students will require a non-programmable calculator for tutorials, tests and the final examination.

Students will also require access to a computer, on which the following are installed or accessible.

(2) Gretl: It is free, open-source software. Visit the Gretl website: http://gretl.sourceforge.net/, and choose the operating system of your computer from the menu on the left-hand side. Download and install the program onto the computer. Download also the manual and all the data for practice.

(3) An internet browser, such as Chrome or Firefox, to access iLearn.

(4) Adobe Acrobat Reader: to read course material downloaded from iLearn. This program can be downloaded from http://www.adobe.com/downloads/.

Required and Recommended Texts and/or Materials

Woodridge, Jeffrey M., *Introductory Econometrics: A Modern Approach*, 7th edition, or

Hill, R. Carter, William E. Griffiths, and Guay C. Lim, *Principles of Econometrics*, 5th edition

Material such as lecture slides, examples, etc will be made available on the unit web site as the unit progresses.

Learning and Teaching Activities

This unit is taught as a mix of lectures and tutorials. The lectures are designed to provide a description of the econometric tools and techniques necessary for this unit and the theory of statistics which supports them. The lectures include numerous examples of the use of the tools in applied problems. Students can reinforce their learning by solving applied problems using the

same tools in tutorials and in their own private study. ECON2032 relies <u>heavily on independent learning</u> where students read the relevant chapter(s), revise lecture notes, and practice the techniques by attempting the tutorial questions.

1. Pre-recorded Lectures (Online, 1 hour for each week)

Pre-recorded lectures provide an overview of the key concepts and the framework for each topic. Students are expected to familiarise themselves with the key concepts before attending live lectures. Pre-recorded lectures will be available on iLearn.

2. Live Lectures (Online, 1 hour for each week)

Live lectures provide a review of selected concepts and where possible a demonstration of the use of the econometric software in applied problems. It is also an opportunity for students to provide feedback on their understanding of the concepts. Students are expected to deepen their understanding of the topic via live lectures. Links to live lectures will be available on iLearn.

3. Tutorials (Online or Face-to-Face*, 1 hour for each topic)

Tutorials will be held weekly, starting from Week 2. There is expected to be a mixture of online and face-to-face tutorials in 2022 Session 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.

The teaching materials provided on iLearn include written problem solving questions as well as *practice* online quizzes. The practice online quizzes will often inlcude questions similar to those on which you will be later examined in *assessable* tutorial quizzes, or in the mid-semester test or final exam. It is highly recommended that you try the practice quizzes before the tutorial session so that you can ask your tutor for help where needed. The tutorials are not intended to be a monologue by the tutor and there will not be time to cover all of the week's material. Students are expected to be familiar with the key concepts and to actively participate in learning activities and discussions.

Outside class time, the best way to get help with a problem is to post it on the online discussion forum.

** 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.