ECON3033

Econometric Methods

Session 1, Weekday attendance, North Ryde 2020

Department of Economics

Contents

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General Information

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Credit points
10

Prerequisites
20cp at 2000 level including ECON232 or ECON2032 or ECON334 or ECON3034

Corequisites

Co-badged status

Unit description
This advanced-level econometrics unit provides students with an opportunity to acquire advanced econometric techniques that can be applied to an empirical analysis of economic, financial, or business phenomena. The unit is suitable both for students who simply want to equip themselves with a more practical knowledge of econometrics and to those planning to pursue a research degree. Topics may include: a review of the multiple regression model and OLS estimation; matrix algebra; GLS estimation; endogenous regressors and consistent estimation; maximum-likelihood estimation; discrete choice models; treatment effects; multivariate time-series models (VECM) and models for panel data. Real-world examples, such as analysing people's choice of mobile phone brands, patterns of crediting rating, or the effectiveness of a medical treatment, are used to illustrate particular techniques. The use of econometric software programs provide a practical problem-solving experience.

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 key concepts and results in advanced econometrics, and apply them to complex scenarios.
>
> **ULO2:** Specify an econometric model that is appropriate for the problem at hand, estimate it using a relevant method, and interpret the estimation results.
>
> **ULO3:** Appraise the statistical properties of estimators and be able to draw correct inferences from them, including hypothesis tests.
>
> **ULO4:** Use matrix algebra to define estimators and analyse their properties.

Assessment Tasks

> **Coronavirus (COVID-19) Update**
>
> Assessment details are no longer provided here as a result of changes due to the Coronavirus (COVID-19) pandemic.
>
> Students should consult iLearn for revised unit information.
>
> Find out more about the Coronavirus (COVID-19) and potential impacts on staff and students

General Assessment Information

- **Homework (20%)**

Four sets of homework questions, of equal value, will be given throughout the semester. Students are required to submit their answers by the due date for each set via *turnitin*. Late submission: Students who do not submit this task by the due date and time receive a result of zero. This penalty does not apply when an application for Special Consideration has been made and approved. Note: applications for Special Consideration Policy must be made within 5 (five) business days of the due date and time. Students who have applied for special consideration must let the lecturer know about it immediately via email. No homework will be accepted after the marked homework has been returned to the students.

- **Class test (20%)**

Topics: the topics covered in Weeks 1−4.

Duration: 50-60 minutes

It is a closed-book test. A calculator is needed for simple calculations. Failure to sit the test will result in a mark of zero being awarded for this component, except for cases in which an application for Special Consideration is made and approved. If special consideration is granted, a supplementary test will be arranged.

- **Assignment (20%)**

The assignment will consist of questions requiring computed and written answers. The questions

will be based on material covered in the lectures up to the due date. It must be submitted via *turnitin*.

Late submission: No extensions will be granted. There will be a deduction of 10% of the total available marks made from the total awarded mark for each 24 hour period or part thereof that the submission is late (for example, 25 hours late in submission incurs a 20% penalty). Late submissions will be accepted up to 96 hours after the due date and time. This penalty does not apply for cases in which an application for Special Consideration is made and approved. Note: applications for Special Consideration must be made within 5 (five) business days of the due date and time. Students who have applied for special consideration must let the lecturer know about it immediately via email. No assignment will be accepted after the marked assignments have been returned to the students.

- **Final examination (40%)**

The examination will be closed-book and of two hours' duration. It will cover all the topics that have been discussed in class during the semester. You will need a calculator.

The University Examination period starts immediately after the closure of classes. You are expected to present yourself for examination at the time and place designated in the University Examination Timetable. The timetable will be available in draft form approximately eight weeks before the commencement of the examinations and in final form approximately four weeks before the commencement of the examinations: http://www.timetables.mq.edu.au/exam.

Students who do not sit for the final exam will be awarded a grade of FA (failed absent). The only exception to this rule will occur in cases where a special consideration is granted on the grounds of unavoidable disruption to studies. Students who are prevented from sitting the final exam due to illness or unavoidable disruption may wish to consider applying for special consideration; see below for the related information. If a supplementary examination is granted as a result of the special consideration process the examination will be scheduled for after the conclusion of the official examination period. If the student does not attend the supplementary examination at the scheduled time, a grade of FA will be awarded.

Delivery and Resources

Coronavirus (COVID-19) Update

Any references to on-campus delivery below may no longer be relevant due to COVID-19.

Please check here for updated delivery information: https://ask.mq.edu.au/account/pub/display/unit_status

Classes

Lecture Class: Tuesday 1 - 4 pm (6 EAR 306)

There is a single three-hour lecture/tutorial class per week. Attendance at lectures is strongly recommended. Selected questions from tutorials will be discussed during lectures.

It should be noted that class attendance is only one part of university study. In addition to class

attendance, students are expected to spend around six to nine hours per week in private study in order to perform well in the unit.

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

Required and Recommended Texts and/or Materials

Lecture slides will be made available on the unit web site as the unit progresses. In addition to these lecture slides, students may find the following reference helpful.

Marno Verbeek, *A Guide to Modern Econometrics*, 5th edition

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 *Firefox* and *Internet Explorer*, 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/.

Learning and Teaching Activities

ECON3033 is taught via lectures, set reading, and tutorial exercises. Students are expected to attend lectures, read the texts after the lecture, attempt tutorial questions, submit homeworks and assignment, and participate in class discussions.

Unit Web Page

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.

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central (https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central). 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

- Grade Appeal Policy

- Complaint Management Procedure for Students and Members of the Public

- Special Consideration Policy *(Note: The Special Consideration Policy is effective from 4 December 2017 and replaces the Disruption to Studies Policy.)*

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

If you would like to see all the policies relevant to Learning and Teaching visit Policy Central (https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central).

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/study/getting-started/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

Student Support

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

Learning Skills

Learning Skills (mq.edu.au/learningskills) provides academic writing resources and study strategies to help you improve your marks and take control of your study.

- Getting help with your assignment

- Workshops

- StudyWise

- 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

Students with a disability are encouraged to contact the Disability Service who can provide appropriate help with any issues that arise during their studies.

Student Enquiries

For all student enquiries, visit Student Connect at ask.mq.edu.au

If you are a Global MBA student contact globalmba.support@mq.edu.au

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.