ECON6034

Econometrics and Business Statistics

Session 1, Weekday attendance, North Ryde 2020

Department of Economics

Contents

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General Information

Unit convenor and teaching staff
Unit convener/Lecturer
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TBA

Credit points
10

Prerequisites
Admission to GradCertFin or GradDipAppFin or MAppEcon or MAppFin or MAppFin(Adv) or MkgFin or MBusAnalytics

Corequisites

Co-badged status

Unit description
This unit is designed to bring students with no econometrics background to an intermediate level in econometrics. Starting from first principles, the unit outlines standard econometric methods to the extent necessary for students to understand key concepts, apply basic methods, and interpret empirical research results in economics, finance and business. The unit material also includes elementary discussions of violations of the standard assumptions for a regression model, such as autocorrelation and heteroscedasticity.

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: Apply basic statistical techniques to different economic and business problems.

ULO2: Evaluate and use appropriate econometric tools to model, estimate and forecast economic data.

ULO3: Apply research skills to select, compare and utilize econometric models.

ULO4: Utilize appropriate practices involved in today's working environment to work

effectively in a group.

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

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

This unit is taught as a mix of tutorials and lectures. The lectures are designed to introduce the underlying knowledge in probability, statistics and econometrics, and to explain the methods which will be used to analyse and interpret data. Tutorials are based mainly on numerical problems which allow students to practice and understand the methods taught in the lectures. The tutorials include empirical applications which require the use of econometric software packages. Students will be taught how to use these packages in tutorials which are held in the computer labs.

Lectures – large group learning (2 hour each teaching week)

Lectures are intended to provide an overview of statistical and econometrics techniques that are critical to the core themes of the unit. Students are expected to read the relevant material before each lecture.

Tutorials – 1 hour per week

Tutorials will go through assigned problems which may be mathematical exercises, or which may require use of the econometric software available in the computer lab to estimate a model.

Self-study activities – learning by doing (about 6 hours each teaching week and 9 hours each week during the 2-week mid-semester recess)

This subject heavily relies on independent learning where students read the lecture notes, relevant chapters in the useful text books and prepare answers to the pre-set tutorial questions.

Useful but not required texts include:

1. Hill, C. H., Griffiths, W. E. and Lim, G. C. (2011) *Principles of Econometrics* (4th ed.)

Wiley -- Available online through our library:

http://ebookcentral.proquest.com.simsrad.net.ocs.mq.edu.au/lib/MQU/

detail.action?docID=4806586

2. Gujarati, N. G. and Porter, D. C. (2009) Essentials of Econometrics, 4th

   Edition, McGraw-Hill

3. Keller, Gerald (2014) *Statistics for Management and Economics* (10th, ed.), Cengage

   Learning.

4. Stock, J. H. and Watson, M. W. (2014) Introduction to Econometrics, 3rd Edition,

   Pearson

Material such as lecture slides, examples, and tutorial questions will be available on the unit home page. The lecture notes, together with the lectures and additional references will provide students with a clear indication of the basic content of the unit.

It is recommended that students attend all lectures and tutorials for several reasons including:

1. Not all the material in the texts is included in the unit, and not all the material in the unit is covered in the texts. In some places the texts deals with issues in greater depth than is necessary for the unit, and in other places it doesn't go far enough. The lectures contain all the unit material taught at the level required for the assessment tasks, and are your guide to the unit content.

2. The approaches to some problems that are recommended by the lecturer are different to those in the text.

3. The lectures will include guidance about the style and content of the final exam and recommendation about study technique.

4. It is difficult (and often impossible) for staff to provide meaningful assistance to students outside class times on topics for which they did not attend the relevant lectures and tutorials.

Unit Schedule

Coronavirus (COVID-19) Update

The unit schedule/topics and any references to on-campus delivery below may no longer be relevant due to COVID-19. Please consult iLearn for latest details, and check here for updated delivery information: https://ask.mq.edu.au/account/pub/display/unit_status

Week No.	Lecture Topic	Activities

1	Introduction & Descriptive Statistics	Lecture
2	Descriptive Statistics (continued)	Lecture & Tutorial
3	Probability and Random Variables	Lecture & Tutorial
4	Probability Distributions	Lecture & Tutorial
5	Sampling Distributions: Point Estimates and Confidence Intervals	Lecture & Tutorial
6	Class Test in Lecture	Tutorial & Class Test
7	Hypothesis Testing	Lecture & Tutorial
	MID-SEMESTER BREAK	
8	Introduction to Regression Analysis	Lecture & Tutorial
9	Multiple Linear Regression	Lecture & Tutorial
10	Class Test in Lecture	Tutorial & Class Test
11	Multiple Linear Regression (continued)	Lecture & Tutorial
12	Regression Model Diagnostics	Lecture & Tutorial
13	Review Exam preparation	Lecture & Tutorial Assignment Due
Exam Period		Final Exam

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.