ECON634

Econometrics and Business Statistics

S2 Day 2017

Dept of Economics

Contents

General Information

Unit convenor and teaching staff
Associate Professor
Shuping Shi
Shuping.shi@mq.edu.au
Contact via (02) 9850 8501
E4A 441
Thursday 4:00- 5:00pm during teaching weeks

Associate Professor
George Milunovich
george.milunovich@mq.edu.au
Contact via (02) 9850 8543
E4A 436
Monday 4:00-5:00pm during teaching weeks

Tutor
Robert Nguyen
robert.nguyen@mq.edu.au

Credit points
4

Prerequisites
Admission to MCom or MAcc(Prof)MCom or MBkgFin or MBioTechMCom or MEc

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:

Understand the principles of econometrics

Apply basic econometric techniques to applied problems

Interpret empirical research results

Appreciate the relevance and limitations of the econometric methods they use

Assessment Tasks

Name	Weighting	Hurdle	Due
Class Test	35%	No	Week 6
Take-home Test	40%	No	Week 11
Individual Assignment	25%	No	13 November 2017

Class Test

Due: **Week 6**
Weighting: **35%**

The class test will be held **during the lectures in Week 6**. The test will cover all material up to and including Week 5. Non-programmable calculators without alphabetic storage capability and an A4 page with hand-written or type-in notes are allowed.

Attendance is compulsory. If you fail to attend the test you will be awarded a zero mark. There will be no catch-up or supplementary examinations. Students who experience serious misadventure and are unable to attend the in-class test should apply for "Disruption to Studies' within 5 working days of the test (see http://www.mq.edu.au/ policy/docs/disruption_studies/ policy.html). If the application is successful, a supplementary assessment will be given (this could include an oral task) and the date of the assessment will be designated by the unit convenor.

On successful completion you will be able to:
• Understand the principles of econometrics
• Apply basic econometric techniques to applied problems

Take-home Test

Due: **Week 11**
Weighting: **40%**

The take-home test is due at **4pm on Friday of Week 11**. It will cover all material up to and

including Week 10.

It is intended that students will work on the test independently. Students who collude or otherwise violate the Academic Honesty Policy will face further action which may result in failure in the unit and more severe penalties.

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 – 20% penalty). This penalty does not apply for cases in which an application for disruption to studies (DTS) is made and approved. No submission will be accepted after solutions have been posted.

When an application for DTS has been approved, policy allows for the provision of one additional assessment task. This task need not be the same as the missed assessment. It could be an individual, group, homework, essay or oral task. In submitting a DTS, the student is agreeing to make themselves available so that they can complete any extra work as required. The time and date, deadline or format of any required extra assessable work is not negotiable.

Students are strongly recommended to keep a photocopy of their take-home exam to ensure against loss. In early Week 11, assignment boxes designated ECON634 will be prepared in the Business and Economic Student Services (E4B, 106) where students can submit their assignments. In addition, students must also submit an electronic copy through iLearn.

On successful completion you will be able to:

- Understand the principles of econometrics
- Apply basic econometric techniques to applied problems
- Interpret empirical research results

Individual Assignment

Due: **13 November 2017**
Weighting: **25%**

The assignment is due at **4pm on 13 November 2017 (Monday).** It will focus on applying econometric techniques to empirical questions using Excel and Eviews.

It is intended that students will work on the assignment independently. Students who collude or otherwise violate the Academic Honesty Policy will face further action which may result in failure in the unit and more severe penalties.

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 – 20% penalty). This penalty does not apply for cases in which an application for disruption to studies is made and approved. No submission will be accepted after solutions have been posted.

When an application for DTS has been approved, policy allows for the provision of one additional assessment task. This task need not be the same as the missed assessment. It could be an individual, group, homework, essay or oral task. In submitting a DTS, the student is agreeing to

make themselves available so that they can complete any extra work as required. The time and date, deadline or format of any required extra assessable work is not negotiable.

Students are strongly recommended to keep a photocopy of their assignment to ensure against loss. In Week 13, assignment boxes designated ECON634 will be prepared in the Business and Economic Student Services (E4B, 106) where students can submit their assignments. In addition, students must also submit an electronic copy through iLearn.

There are no set minimum or maximum lengths for the assignment. However, assignments should be complete and concise.

On successful completion you will be able to:
- Understand the principles of econometrics
- Apply basic econometric techniques to applied problems
- Interpret empirical research results
- Appreciate the relevance and limitations of the econometric methods they use

Delivery and Resources

This unit is taught as a mix of lectures (2 hours each teaching week) and tutorials (1 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. Exercise questions will be posted on iLearn each week before the tutorial classes. Students are expected to have made an attempt at the questions before each tutorial.

ECON634 relies heavily on independent learning where students revise the lecture notes, prepare answers to the pre-set exercise questions and extend themselves by doing additional reading, questions, exercises and problems.

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

Useful references

1. Keller, Gerald (2014) *Statistics for Management and Economics* (10th, ed.), Cengage Learning.
2. Hill, C. H., Griffiths, W. E. and Lim, G. C. (2011) *Principles of Econometrics* (4th ed.) Wiley.

Material such as lecture slides and exercise questions will be available on the unit home page (iLearn). The lecture notes, together with the lectures and additional references will provide students with a clear indication of the basic content of the unit. Students are required to use a computer to access the course website and carry out certain tasks of the course, such as exercises and assignments.

Technology Used and Required

Students are required to use a computer to carry out certain tasks of the course, such as tutorials and assignments. The software programs used in this course include Microsoft Excel and EViews 9.0.

Unit Schedule

The list below is a proposed study plan, but this may be modified as we progress through the semester to allow us to take more or less time with different sections of the course as required.

Week No.	Lecture Topic	Summary of Activities	Assessment
1	Introduction & Descriptive Statistics	Lecture	
2	Probability and Random Variables	Lecture & Tutorial	
3	Some Important Probability Distributions	Lecture & Tutorial	
4	Sampling Distributions and Central Limit Theorem	Lecture & Tutorial	
5	Point Estimation and Interval Estimation	Lecture & Tutorial	
6	Class Test	Lecture & Tutorial	Class Test
7	Hypothesis Testing	Lecture & Tutorial	
Teaching break			
8	Hypothesis Testing	Lecture & Tutorial	
9	Regression Analysis	Lecture & Tutorial	
10	Regression Analysis	Lecture & Tutorial	
11	Regression Model Diagnostics	Lecture & Tutorial	Take-Home exam due
12	Regression Model Diagnostics	Lecture & Tutorial	
13	Revision	Lecture & Tutorial	
			Assignment due

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central. Students should be aware of the following policies in particular with regard to Learning and Teaching:

Academic Honesty Policy http://mq.edu.au/policy/docs/academic_honesty/policy.html

Assessment Policy http://mq.edu.au/policy/docs/assessment/policy_2016.html

Grade Appeal Policy http://mq.edu.au/policy/docs/gradeappeal/policy.html

Complaint Management Procedure for Students and Members of the Public http://www.mq.edu.au/policy/docs/complaint_management/procedure.html

Disruption to Studies Policy (in effect until Dec 4th, 2017): http://www.mq.edu.au/policy/docs/disruption_studies/policy.html

Special Consideration Policy (in effect from Dec 4th, 2017): https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policies/special-consideration

In addition, a number of other policies can be found in the Learning and Teaching Category of 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/support/student_conduct/

Results

Results shown in *iLearn*, 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.

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 improve your marks and take control of your study.

- Workshops
- StudyWise
- Academic Integrity Module for Students
- Ask a Learning Adviser

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

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.

Graduate Capabilities

Discipline Specific Knowledge and Skills

Our graduates will take with them the intellectual development, depth and breadth of knowledge, scholarly understanding, and specific subject content in their chosen fields to make them competent and confident in their subject or profession. They will be able to demonstrate, where relevant, professional technical competence and meet professional standards. They will be able to articulate the structure of knowledge of their discipline, be able to adapt discipline-specific knowledge to novel situations, and be able to contribute from their discipline to inter-disciplinary solutions to problems.

This graduate capability is supported by:

Learning outcomes

- Understand the principles of econometrics
- Apply basic econometric techniques to applied problems
- Interpret empirical research results
- Appreciate the relevance and limitations of the econometric methods they use

Assessment tasks

- Class Test
- Take-home Test
- Individual Assignment

Critical, Analytical and Integrative Thinking

We want our graduates to be capable of reasoning, questioning and analysing, and to integrate and synthesise learning and knowledge from a range of sources and environments; to be able to critique constraints, assumptions and limitations; to be able to think independently and systemically in relation to scholarly activity, in the workplace, and in the world. We want them to have a level of scientific and information technology literacy.

This graduate capability is supported by:

Learning outcomes

- Understand the principles of econometrics
- Apply basic econometric techniques to applied problems

- Appreciate the relevance and limitations of the econometric methods they use

Assessment tasks

- Class Test
- Take-home Test
- Individual Assignment

Effective Communication

We want to develop in our students the ability to communicate and convey their views in forms effective with different audiences. We want our graduates to take with them the capability to read, listen, question, gather and evaluate information resources in a variety of formats, assess, write clearly, speak effectively, and to use visual communication and communication technologies as appropriate.

This graduate capability is supported by:

Learning outcome

- Interpret empirical research results

Assessment tasks

- Class Test
- Take-home Test
- Individual Assignment