ECON634

Econometrics and Business Statistics

S2 Day 2014

Economics

Contents

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General Information

Unit convenor and teaching staff
Senior Lecturer
Shuping Shi
Shuping.shi@mq.edu.au
Contact via (02) 9850 8501
E4A 441
TBA

Credit points
4

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

Corequisites

Co-badged status

Unit description
This unit that 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	Due
Class Test	30%	Week 6
Individual Assignment	20%	Week 11
Final Exam	50%	University Examination Period

Class Test

Due: **Week 6**
Weighting: **30%**

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Weighting: **30%**

The class test will be held during the lectures in Week 6. The test will cover all material up to and including Week 5. A calculator is needed for the test and 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

Individual Assignment

Due: **Week 11**
Weighting: **20%**

The assignment is due at **4pm on Friday of Week 11**. Extensions are only granted for cases in which an application for special consideration is made and approved. If no arrangement is in place, assignments will be penalised at a rate of 20% per day or part thereof that the assignment is late. For example, if an assignment is late by less than 24 hours, 20% of the final mark will be deducted as penalty; if an assignment is late by more than 24 hours but less than 48 hours, 40% of the final mark will be deducted as penalty. Students are strongly recommended to keep a photocopy of their assignment to ensure against loss. In early Week 11, assignment boxes designated ECON334 will be prepared in the Business and Economics Student Services (BESS, E4B106) 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

Final Exam

Due: **University Examination Period**
Weighting: **50%**

A two-hour examination will be held in the final examination period. It will contribute 50% of your final raw score. The final examination will be based on all the work covered throughout the duration of the semester. The exam will include a mixture of theoretical and numerical questions. Students will be provided with further details regarding the exam as it approaches. Computer outputs and statistical tables are provided. Non-programmable calculators without alphabetic storage capability and an A4 page with hand-written or type-in notes are allowed into the examination room.

The time and venue of the exam will be organised and announced in due time by the University. 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:// exams.mq.edu.au/.

Students who do not sit for the final exam will be awarded a grade of FA (failed absent). The only exception to not sitting an examination at the designated time is because of documented illness or unavoidable disruption. In these circumstances you may wish to consider applying for 'Disruption to Studies'. The University's policy on 'Disruption to Studies' process is available at http://www.mq.edu.au/policy/docs/disruption_studies/policy.html. If a Supplementary Examination is granted as a result of the 'Disruption to Studies' process the examination will be scheduled after the conclusion of the official examination period.

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 traditional lecture course. The timetable for classes can be found on the

University web site at: http://www.timetables.mq.edu.au/. 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. ECON634 relies heavily on independent learning where students read the relevant chapter, revise the lecture notes, prepare answers to the pre-set exercise questions and extend themselves by doing additional reading, questions, exercises and problems.

Useful references include

1. Stock, J. H. and Watson, M. W. (2008) Introduction to Econometrics, Brief Edition, Pearson Addison Wesley

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. 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.

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. Theme/Topic	Summary of Activities	Assessment
1 Introduction & Descriptive Statistics	Lecture	
2 Probability, and Random Variables	Lecture	
3 Some Important Probability Distributions	Lecture	
4 Sampling Distributions and Central Limit Theorem	Lecture	
5 Point Estimation and Interval Estimation	Lecture	
6 In Class Test + Point Estimation and Interval Estimation	Lecture	In Class Test
7 Hypothesis Testing	Lecture	
Teaching Break		
8 Hypothesis Testing	Lecture	

9	Regression Analysis	Lecture	
10	Regression Analysis	Lecture	
11	Regression Model Diagnostics	Lecture	Assignment due
12	Regression Model Diagnostics	Lecture	
13	Revision	Lecture	
Examination period			

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.html

Grading Policy http://mq.edu.au/policy/docs/grading/policy.html

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

Grievance Management Policy http://mq.edu.au/policy/docs/grievance_management/policy.html

Disruption to Studies Policy http://www.mq.edu.au/policy/docs/disruption_studies/policy.html *The Disruption to Studies Policy is effective from March 3 2014 and replaces the Special Consideration Policy.*

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/

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://informatics.mq.edu.au/help/.

When using the University's IT, you must adhere to the Acceptable Use Policy. The policy applies to all who connect to the MQ network including students.

Graduate Capabilities

PG - Discipline Knowledge and Skills

Our postgraduates will be able to demonstrate a significantly enhanced depth and breadth of knowledge, scholarly understanding, and specific subject content knowledge in their chosen fields.

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
- Individual Assignment
- Final Exam

PG - Critical, Analytical and Integrative Thinking

Our postgraduates will be capable of utilising and reflecting on prior knowledge and experience, of applying higher level critical thinking skills, and of integrating and synthesising learning and knowledge from a range of sources and environments. A characteristic of this form of thinking is the generation of new, professionally oriented knowledge through personal or group-based critique of practice and theory.

This graduate capability is supported by:

Learning outcomes

- 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
- Individual Assignment
- Final Exam

PG - Research and Problem Solving Capability

Our postgraduates will be capable of systematic enquiry; able to use research skills to create new knowledge that can be applied to real world issues, or contribute to a field of study or practice to enhance society. They will be capable of creative questioning, problem finding and problem solving.

This graduate capability is supported by:

Learning outcomes

- Apply basic econometric techniques to applied problems
- Appreciate the relevance and limitations of the econometric methods they use

Assessment tasks

- Class Test
- Individual Assignment
- Final Exam

PG - Effective Communication

Our postgraduates will be able to communicate effectively and convey their views to different social, cultural, and professional audiences. They will be able to use a variety of technologically supported media to communicate with empathy using a range of written, spoken or visual formats.

This graduate capability is supported by:

Learning outcomes

- Understand the principles of econometrics
- Interpret empirical research results

Assessment tasks

- Class Test
- Individual Assignment
- Final Exam

Changes since First Published

Date	Description
11/02/2014	The Prerequisites was updated.