

MACQUARIE
UNIVERSITY



FACULTY OF
BUSINESS AND ECONOMICS

Econ634
Econometrics and Business
Statistics

Semester 1, 2011

Department of Economics

**MACQUARIE UNIVERSITY
FACULTY OF BUSINESS AND ECONOMICS
UNIT OUTLINE**

Year and Semester:	Semester 1, 2011
Unit convenor:	Dr. George Milunovich
Credit points:	4

Students enrolled in Econ634 should read this unit outline carefully at the start of semester. It contains important information about the unit. If anything seems unclear, please consult one of the teaching staff in the unit.

ABOUT THIS UNIT

Unit Description

This is an introductory postgraduate econometrics unit that is designed to bring students with no background to an intermediate level in econometrics. The unit is a prerequisite for econometrics electives in the postgraduate program. 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.

TEACHING STAFF

1. Convenor:

Dr. George Milunovich,
Office: E4A-443
Tel: (02) 9850 8543
email: george.milunovich@mq.edu.au

CONSULTATION TIMES

Office (consultation) hours will be announced in class and made available on the unit's website.

You are encouraged to seek help at a time that is convenient to you from a staff member teaching this unit during their regular consultation hours. In special circumstances, an appointment may be made outside regular consultation hours. Staff will not conduct any consultations by email. You may, however, phone staff during their consultation hours. Students experiencing significant difficulties with any topic in the unit must seek assistance immediately.

CLASSES

Number and length of classes

- 3 hours face-to-face teaching per week consisting of one 2 hour lecture and one 1 hour tutorial (Wed 18-21 E4B 314)
- The timetable for classes can be found on the University web site at: <http://www.timetables.mq.edu.au/>

REQUIRED AND RECOMMENDED TEXTS AND/OR MATERIALS

The prescribed text for the unit is:

Barrow, M. (2009) *Statistics for Economics, Accounting and Business Studies*, 5th Edition, Prentice Hall.

It can be purchased from the Macquarie University Co-op Bookshop, and will also be available in the Macquarie Library. *The book comes with a password code for My MathLab an online platform that we'll be using during the course.*

Additional, useful but not required, references include:

- Stock, J. H. and Watson, M. W. (2008) *Introduction to Econometrics*, Brief Edition, Pearson Addison Wesley
- Material such as lecture slides, examples, and tutorial questions will be available on the unit home page. The text and 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:*
 - i) Not all the material in the text is covered in the unit, and not all the material in the unit is covered in the text. In some places the text 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.
 - ii) The approaches to some problems that are recommended by the lecturer are different to those in the text.
 - iii) The lectures will include guidance about the style and content of the final exam and recommendation about study technique.
 - iv) 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.

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 7.0.

These programs are used because of the following reasons:

- They are flexible enough to be applied to all possible situations that can arise from the topics of this course.
- They are easy to manipulate data (that is, to read data series, to generate new variables, and to use only a part of the data, etc)
- Their output contains all necessary statistics that are used in this course.

UNIT WEB PAGE

- Course material is available on the learning management system (BlackBoard), which can be found at: <http://learn.mq.edu.au>.
- The following information will be available on Blackboard:

• Unit Outline	• Announcements
• Lecture slides	• Selected tutorial solutions

<ul style="list-style-type: none"> Information on Assessments 	<ul style="list-style-type: none"> Staff consultation hours and contact details
<ul style="list-style-type: none"> Other relevant material 	

You are strongly encouraged to regularly visit the website and use it as a resource centre to assist with your learning. If you are unable to access the website because you are not aware of or have forgotten your username and password, please contact the IT helpdesk located on Level 1 of the Library on 9850 6500. The IT helpdesk will also be able to assist you with using Blackboard. Please note that there is also a help feature in Blackboard and you may refer to this instead for assistance in using Blackboard. Please remember to log out when you have finished using Blackboard. Failure to do so could result in unauthorised access to your Blackboard account.

LEARNING OUTCOMES AND GRADUATE CAPABILITIES

At the end of this course you will be able to:

- Apply basic statistical techniques to problems in economics and business
- Use econometric tools to model, estimate and forecast economic data
- Critically evaluate empirical econometric work
- Engage into further studies in econometrics

In addition to the discipline-based learning objectives, all academic programs at Macquarie seek to develop students' generic skills in a range of areas. One of the aims of this unit is that students develop their skills in the following:

Foundation skills of literacy, numeracy and information technology;
Critical analysis skills;
Problem-solving skills;
Engaged and Ethical Local and Global citizens;
Capable of Professional and personal Judgement and Initiative;
Creative thinking skills.

LEARNING AND TEACHING STRATEGY

This unit is taught as a mix of tutorials and lectures. The lectures are designed to provide the tools which can then be applied in tutorials.

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 chapters before each lecture. Additional reading material such as academic papers and research reports will be provided on the website.

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

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

Tutorials (1 hour each teaching week)

Tutorials constitute a critical learning experience of this unit and students must attend them. The tutor will facilitate a highly student-centred discussion of answers to pre-set tutorial questions. A tutorial is also an active forum to present to the tutor difficulties you encountered when preparing for the pre-set tutorial questions. Ask your tutor questions and further

guidance on how to approach questions. Students are expected to complete the tutorials empirical work and attempt the tutorial questions before each tutorial.

After the tutorials – the learning continues

At the end of each week, solutions to the tutorials will be posted on the unit website. Review your tutorial notes, compare your answers to the model solutions, and consult with staff during consultation hours.

RELATIONSHIP BETWEEN ASSESSMENT AND LEARNING OUTCOMES

The components of assessment in this course are as follows:

- (1) **Quizzes** **10%**
Two short quizzes in Weeks 4 and 10.
- (2) **Tests** **30%**
Two 50-minute multiple-choice tests (15% each) will be held in the first hour of the regular lecture in Weeks 7 and 13. A calculator is needed for the test and attendance is compulsory. If you fail to attend these examinations 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 either test should submit a letter with appropriate documentary evidence to the lecturer, as soon as possible.
- (3) **Assignment** **10%**
A group assignment (up to 3 people per group). Choose a topic of interest to you and analyse using the methods studied in Econ634 or other statistics/econometrics courses. Give a 10 minute presentation on why we should care about your topic, what methods you used and what your findings are.
- (4) **Final Examination** **50%**
A two-hour examination will be held during the final examination period.

Computer outputs and statistical tables are provided. Only non-programmable calculators without alphabetic storage capability 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://www.timetables.mq.edu.au/exam>. 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 Special Consideration. The University's policy on special consideration process is available at http://www.mq.edu.au/policy/docs/special_consideration/policy.html

If a Supplementary Examination is granted as a result of the Special Consideration process the examination will be scheduled after the conclusion of the official examination period.

The Macquarie university examination policy details the principles and conduct of examinations at the University. The policy is available at:
<http://www.mq.edu.au/policy/docs/examination/policy.htm>

Requirements to Pass This Unit

To pass ECON634, students must satisfy each of the following requirements:

- (1) An overall satisfactory performance in all assessment components; and

Under the current grading system, a **standardised numerical grade (SNG)** will be awarded together with a band grade HD, D, CR, P, PC, or F. It is important for students to note that the SNG is NOT the weighted aggregate of the raw marks for the above three assessment components. It is rather a detailed grade that is chosen from 0 to 100 based on other criteria as well as the raw marks. For instance, the SNG for a student who gains a raw aggregate mark of 55 but fails the final would be lower than 45 indicating that he/she fails the unit. As such, an SNG of say 73 or 74 does NOT mean that the student's aggregate mark is one or two marks below the threshold for a D. It means that his/her work and performance in the unit is of predominantly good quality and did better than other students in the CR band but not quite of superior quality needed for a D.

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>.

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 Special Consideration. Information about unavoidable disruption and the special consideration process is available at
<http://www.reg.mq.edu.au/Forms/APSCon.pdf>. All claims have to be substantiated by a signed Professional Authority Form, and if they are based on non-medical grounds, supporting documentation (such as statutory declarations by independent witnesses, police reports, or statements from sufficiently senior officials in the place of employment) must also be provided. If accepted, in most cases, the students will be required to sit a supplementary examination on a date set by the Faculty. So, students who intend to be away must take account of this rule in scheduling any travel after lodging the request.

The format of the supplementary examination may be different from the usual examination. To prevent students from abusing this facility and to protect only the students with genuine reasons, **the result of supplementary examination will replace the result of the usual examination if a student sits a supplementary examination as well as the usual examination.** This implies that a student will fail the unit if he/she fails the supplementary examination regardless of his/her performance in the usual examination. If you believe this rule unfairly disadvantages you, contact the lecturer in charge before lodging the request form.

You are advised that it is Macquarie University policy not to set early examinations for individuals or groups of students. All students are expected to ensure that they are available until the end of the teaching semester, i.e. the final day of the official examination period.

ACADEMIC HONESTY

The nature of scholarly endeavour, dependent as it is on the work of others, binds all members of the University community to abide by the principles of academic honesty. Its fundamental principle is that all staff and students act with integrity in the creation, development, application and use of ideas and information. This means that:

- all academic work claimed as original is the work of the author making the claim
- all academic collaborations are acknowledged
- academic work is not falsified in any way
- when the ideas of others are used, these ideas are acknowledged appropriately.

Further information on the academic honesty can be found in the Macquarie University Academic Honesty Policy at http://www.mq.edu.au/policy/docs/academic_honesty/policy.html

GRADING APPEALS AND FINAL EXAMINATION SCRIPT VIEWING

If, at the conclusion of the unit, you have performed below expectations, and are considering lodging an appeal of grade and/or viewing your final exam script please refer to the following website which provides information about these processes and the cut off dates in the first instance. Please read the instructions provided concerning what constitutes a valid grounds for appeal before appealing your grade.

http://www.businessandconomics.mq.edu.au/for/new_and_current_students/undergraduate/admin_central/grade_appeals

SPECIAL CONSIDERATION

The University is committed to equity and fairness in all aspects of its learning and teaching. In stating this commitment, the University recognises that there may be circumstances where a student is prevented by unavoidable disruption from performing in accordance with their ability. A special consideration policy exists to support students who experience serious and unavoidable disruption such that they do not reach their usual demonstrated performance level. The policy is available at:

http://www.mq.edu.au/policy/docs/special_consideration/procedure.html

STUDENT SUPPORT SERVICES

Macquarie University provides a range of Academic Student Support Services. Details of these services can be accessed at <http://www.student.mq.edu.au>.

The Faculty of Business and Economics offers additional support for its students such as EFS Resource and Information Centre commonly known as BESS, Peer Assisted Learning (PAL), etc... Details of these services can be accessed at <http://www.businessandconomics.mq.edu.au/current/undergraduate/bess>

IT CONDITIONS OF USE

Access to all student computing facilities within the Faculty of Business and Economics is restricted to authorised coursework for approved units. Student ID cards must be displayed in the locations provided at all times.

Students are expected to act responsibly when utilising University IT facilities. The following regulations apply to the use of computing facilities and online services:

- Accessing inappropriate web sites or downloading inappropriate material is not permitted. Material that is not related to coursework for approved unit is deemed inappropriate.
- Downloading copyright material without permission from the copyright owner is illegal, and strictly prohibited. Students detected undertaking such activities will face disciplinary action, which may result in criminal proceedings.

Non-compliance with these conditions may result in disciplinary action without further notice.

Students must use their Macquarie University email addresses to communicate with staff as it is University policy that the University issued email account is used for official University communication.

2011 COURSE CALENDAR ECON634

Week No.	Lecture Topic	Tutorials
1	Descriptive Statistics – textbook Ch. 1	
2	Probability - textbook Ch.2	Tutorial Week 2
3	Probability Distributions – textbook Ch. 3	Tutorial Week 3
4	Estimation and Confidence Intervals – textbook Ch. 4	Quiz No. 1 Tutorial Week 4
5	Hypothesis Testing – textbook Ch. 5	Tutorial Week 5
6	Chi-squared and F distributions – textbook Ch. 6	Tutorial Week 6
7	Test No. 1	Tutorial Week 7
MID-SEMESTER BREAK		
8	Correlation and Regression – textbook Ch. 7	Tutorial Week 8
9	Multiple Regression – textbook Ch. 8	Tutorial Week 9
10	Multiple Regression Topics – material provided in lectures	Quiz No. 2 Tutorial Week 10
11	Multiple Regression Topics – material provided in lectures	Tutorial Week 11
12	Assignment Presentations	Tutorial Week 12
13	Test No. 2	Tutorial Week 13