



# ECON 835: APPLIED ECONOMETRICS II

MACQUARIE UNIVERSITY  
DIVISION OF ECONOMIC AND FINANCIAL STUDIES  
UNIT OUTLINE

SEMESTER 2, 2007

## TEACHING STAFF

**Unit convenor: Dr. Stéphane Mahuteau**, Economics Department, bldg E4A room 528

Phone: 9850 8489

Email: [smahutea@efs.mq.edu.au](mailto:smahutea@efs.mq.edu.au)

**Mr. Roger Tonkin**, Economics Department, bldg E4A room 528

Phone: 9850 8494

Email: [rtonkin@efs.mq.edu.au](mailto:rtonkin@efs.mq.edu.au)

**Prerequisite:** Basic knowledge in statistics and econometrics is recommended.

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

## ABOUT THIS UNIT

- **Objective:** The aim of this unit is to introduce students to econometric modelling, keeping the focus on applications to actual economic issues. Upon completion of this unit, students will be expected to be able to conduct their own econometric analysis on varied topics.

The first part of the course will focus on introducing the basic tools for estimating economic models and dealing with the violations of the assumptions of the classical model. The second part will extend to more specific topics and techniques to deal with qualitative and limited dependent variables. The last set of lectures will deal with selection problems in applied econometrics.

## CLASSES

- **One three hours lecture per week:**
  - **The first 5 lectures will be conducted every Friday at 5pm in building E4A (room to be advised)**
  - **The remainder of the lectures will be held every Thursday at 6pm in E6A133**

## REQUIRED AND RECOMMENDED TEXTS AND/OR MATERIALS

- Stock J.H., Watson M.W., *Introduction to Econometrics*, Pearson Education International Edition, 2003, ISBN: 0-321-22351-9.
- A complete set of Lecture notes will be available on WebCT
- A free copy of the software SHAZAM will be available on WebCT for students to install on their computer.
- **ADDITIONAL TEXTS:**

Greene W.H., *Econometric Analysis*, (5<sup>th</sup> edition), UpperSaddle River, NJ: Prentice Hall.  
Berndt E.R. (1991), *The Practice of Econometrics Classic and Contemporary*, Addison Wesley.  
Gujarati, D.N., (2003), *Basic Econometrics*, 4<sup>th</sup> edition, McGraw-Hill Irwin.  
Kennedy P., (2003), *A guide to Econometrics*, Blackwell publishing.  
Wooldridge J.M., *Introductory Econometrics: A Modern Approach*, 3<sup>rd</sup> edition, Thomson

## UNIT WEB PAGE

- The web page for this unit can be found at [https://online.mq.edu.au/webct/ticket/ticketLogin?action=print\\_login&request\\_uri=/webct/homearea/homearea%3](https://online.mq.edu.au/webct/ticket/ticketLogin?action=print_login&request_uri=/webct/homearea/homearea%3)

## LEARNING OUTCOMES

- **INDICATIVE TOPICS DEVELOPED IN THE LECTURES**

Topic1: Linear regression analysis with multiple regressors: Estimation and Inference.

Topic 2: Non linearities + introduction to Shazam

Topic 3: Multicollinearity

Topic 4: Auto correlation

Topic 5: Omitted variables + Applications with Shazam

Topic 6: Heteroscedasticity

Topic 7: Dummy and interaction variables

Topic 8: Model specification and diagnostic testing + Shazam applications

Topic 9: Introduction to Time series analysis.

- Topic 10: Identification problems
- Topic 11: Simultaneous equation methods
- Topic 12: Maximum likelihood estimations
- Topic 13: Binary and multinomial Logit/ Probit
- Topic 14: Selection problems and/or Tobit estimations

## RELATIONSHIP BETWEEN ASSESSMENT AND LEARNING OUTCOMES

### ASSESSMENT:

- **Two Econometric projects (40%):**
  - **The first project is due on the Friday following the mid semester break at 4pm**
  - **The second project is due on the Friday of Week 13 at 4pm.**
- **A final examination (60%)**

### ECONOMETRIC PROJECTS:

- Both Econometric projects **must be submitted at the ECON835 assessment box opened at EFS Resource and Information Centre (ERIC) situated in Room 106, Building E4B**
- For the econometric projects, students will be expected to demonstrate their ability to use the SHAZAM software to estimate econometric models on a topic chosen by the lecturer and to perform the appropriate statistical tests as requested by the questions handout. Each question of the handout requires students to perform the necessary calculations, to provide explanations of the techniques and methods used and an Economic discussion of the results obtained. No maximum word limit is imposed for neither project.
- **Assignments submitted late will NOT BE ACCEPTED.** If any assignment cannot be delivered by the due date because of illness or unavoidable disruption, as described in the rules for obtaining Special considerations for the final examination, an extension may be granted by the lecturer in charge.

The University Examination period in Second Half Year 2007 is from 14<sup>th</sup> November to 30<sup>th</sup> November.

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>

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. (Individual Divisions may wish to signal when the Division's Supplementaries are normally scheduled.)

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, that is the final day of the official examination period.

## **PLAGIARISM**

The University defines plagiarism in its rules: "Plagiarism involves using the work of another person and presenting it as one's own." Plagiarism is a serious breach of the University's rules and carries significant penalties. You must read the University's practices and procedures on plagiarism. These can be found in the *Handbook of Undergraduate Studies* or on the web at: <http://www.student.mq.edu.au/plagiarism/>

The policies and procedures explain what plagiarism is, how to avoid it, the procedures that will be taken in cases of suspected plagiarism, and the penalties if you are found guilty. Penalties may include a deduction of marks, failure in the unit, and/or referral to the University Discipline Committee.

## **UNIVERSITY POLICY ON GRADING**

Academic Senate has a set of guidelines on the distribution of grades across the range from fail to high distinction. Your final result will include one of these grades plus a standardised numerical grade (SNG).

On occasion your raw mark for a unit (i.e., the total of your marks for each assessment item) may not be the same as the SNG which you receive. Under the Senate guidelines, results may be scaled to ensure that there is a degree of comparability across the university, so that units with the same past performances of their students should achieve similar results.

It is important that you realise that the policy does not require that a minimum number of students are to be failed in any unit. In fact it does something like the opposite, in requiring examiners to explain their actions if more than 20% of students fail in a unit.

The process of scaling does not change the order of marks among students. A student who receives a higher raw mark than another will also receive a higher final scaled mark.

For an explanation of the policy see

<http://senate.mq.edu.au/rules/Guidelines2003.doc> or

<http://senate.mq.edu.au/rules/detailedguidelines.doc>.

## **STUDENT SUPPORT SERVICES**

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