ECON6034

Econometrics and Business Statistics

Session 2, Special circumstance 2020

Department of Economics

Contents

General Information 2

Learning Outcomes 2

General Assessment Information 3

Assessment Tasks 4

Delivery and Resources 6

Unit Schedule 8

Policies and Procedures 8

Disclaimer

Macquarie University has taken all reasonable measures to ensure the information in this publication is accurate and up-to-date. However, the information may change or become out-dated as a result of change in University policies, procedures or rules. The University reserves the right to make changes to any information in this publication without notice. Users of this publication are advised to check the website version of this publication [or the relevant faculty or department] before acting on any information in this publication.

Notice

As part of Phase 3 of our return to campus plan, most units will now run tutorials, seminars and ot her small group learning activities on campus for the second half-year, while keeping an online ver sion available for those students unable to return or those who choose to continue their studies onli ne.

To check the availability of face-to-face and onlin e activities for your unit, please go to timetable vi ewer. To check detailed information on unit asses sments visit your unit's iLearn space or consult yo ur unit convenor.

General Information

Unit convenor and teaching staff
Unit convener
Fazeel Mohamed Jaleel
fazeel.jaleel@mq.edu.au
4EAR 452
TBA

Aditya Srivastava
aditya.srivastava@mq.edu.au

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:

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

ULO1: Apply basic statistical techniques to different economic and business problems.

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

ULO4: Utilise appropriate practices involved in today's working environment to work effectively in a group.

General Assessment Information

Class Test 1

A 75 minute online test consisting of multiple-choice and short answer questions will be held during the lecture in week 6. The test will cover all contents from week 1 to week 5, inclusive. A calculator is needed for the test and attendance is compulsory.

Students must be available during the time of the lecture class to sit the class test. The only exception to this is when the student submits a valid application for Special Consideration which is approved by the University. In these circumstances the student may wish to consult the Special Consideration Policy which is available via the link in the Policies and Procedures section of this document.

This Assessment Task relates to the following Learning Outcomes:

- Apply basic statistical techniques to problems in economics and business
- Apply research skills to select, compare and utilise econometric models.

Class Test 2

A 75 minute online test consisting of multiple-choice and short-answer questions will be held during the lecture time in week 10. The test will cover all contents from week 1 to week 9, inclusive. A calculator is needed for the test and attendance is compulsory.

Students must be available during the time of the lecture class to sit the class test. The only exception to this is when the student submits a valid application for Special Consideration which is approved by the University. In these circumstances the student may wish to consult the Special Consideration Policy which is available via the link in the Policies and Procedures section of this document.

This Assessment Task relates to the following Learning Outcomes:

- Apply basic statistical techniques to problems in economics and business
- Apply research skills to select, compare and utilise econometric models.

Assignment

The assignment will require students to analyse some sets of data using the econometric software and econometric models described in the course. The assignment must be submitted electronically in week 13. Further details including the assignment topic will be released in iLearn.

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 the student submits a valid application for Special Consideration which is approved by the University. In these circumstances the student may wish to consult the Special Consideration Policy which is available via the link in the Policies and Procedures section of this document.

This Assessment Task relates to the following Learning Outcomes:

- Apply basic statistical techniques to problems in economics and business
- Evaluate and use appropriate econometric tools to model, estimate and forecast economic data.
- Apply research skills to select, compare and utilise econometric models
- Utilise appropriate practices involved in today's working environment to work effectively in a group.

Final Examination

The final exam will consist of multiple-choice questions and short-answer questions. The exam will have a duration of 1 hour and 40 minutes.

This Assessment Task relates to the following Learning Outcomes:

- Apply basic statistical techniques to problems in economics and business
- Evaluate and use appropriate econometric tools to model, estimate and forecast economic data.
- Apply research skills to select, compare and utilise econometric models

Assessment Tasks

Name	Weighting	Hurdle	Due
Class Test	15%	No	Week 6 (during the lecture time)
Quiz	20%	No	Week 10 (during the lecture time)
Group assignment	30%	No	Week 13 Monday 10am
Final examination	35%	No	University Examination Period

Class Test

Assessment Type [1]: Quiz/Test
Indicative Time on Task [2]: 7.5 hours
Due: **Week 6 (during the lecture time)**

Weighting: **15%**

A 75 minute test consisting of multiple-choice questions will be held during the lecture in week 6.

On successful completion you will be able to:

- Evaluate and use appropriate econometric tools to model, estimate and forecast economic data.
- Apply basic statistical techniques to different economic and business problems.

Quiz

Assessment Type [1]: Quiz/Test
Indicative Time on Task [2]: 10 hours
Due: **Week 10 (during the lecture time)**
Weighting: **20%**

A 75 minute test consisting of multiple-choice and short-answer questions will be held during the lecture in week 10.

On successful completion you will be able to:

- Evaluate and use appropriate econometric tools to model, estimate and forecast economic data.
- Apply basic statistical techniques to different economic and business problems.

Group assignment

Assessment Type [1]: Qualitative analysis task
Indicative Time on Task [2]: 15 hours
Due: **Week 13 Monday 10am**
Weighting: **30%**

The assignment will require students to critically analyse some sets of data using the econometric software and regression models (including time-series and cross-sectional data). The group will estimate a variety of different models, compare and contrast the outcomes, and assess the suitability of the models for the analysis.

On successful completion you will be able to:

- Evaluate and use appropriate econometric tools to model, estimate and forecast economic data.
- Apply basic statistical techniques to different economic and business problems.
- Apply research skills to select, compare and utilise econometric models.
- Utilise appropriate practices involved in today's working environment to work effectively in a group.

Final examination

Assessment Type [1]: Examination
Indicative Time on Task [2]: 17.5 hours
Due: **University Examination Period**
Weighting: **35%**

A two hour open book examination will be held during the University Examination Period, and will consist of multiple-choice and short-answer questions.

On successful completion you will be able to:

- Evaluate and use appropriate econometric tools to model, estimate and forecast economic data.
- Apply basic statistical techniques to different economic and business problems.
- Apply research skills to select, compare and utilise econometric models.

---

[1] If you need help with your assignment, please contact:

- the academic teaching staff in your unit for guidance in understanding or completing this type of assessment
- the Writing Centre for academic skills support.

[2] Indicative time-on-task is an estimate of the time required for completion of the assessment task and is subject to individual variation

Delivery and Resources

This unit is taught as a mix of tutorials, 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.

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 AppStream to estimate a model.

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

ECON6034 relies heavily 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 listen to 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

	Week No.	Lecture Topic	Activities
	1	Introduction & Descriptive Statistics for Data	Lecture
	2	Descriptive Statistics for Data (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 time	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.