MQBS7040

Quantitative Research Methods

Session 2, Special circumstance 2020

Macquarie Business School Faculty level units

Contents

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
Roselyne Joyeux
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Contact via email
E4A440
TBA

Credit points
10

Prerequisites
Admission to MRes

Corequisites

Co-badged status
MQBS8040

Unit description
This unit focuses on advanced statistical approaches used in Business and Economics and related disciplines. Topics include statistical modelling, time series analysis, ARCH, GARCH model, longitudinal and panel data models, generalised linear models and limited dependent variables. The unit will also consider applications of the above models and techniques to these disciplines.

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:

ULO1: Demonstrate knowledge of a range of generalizations of regression and how to apply them.
ULO2: Assess how linear models, time series models and various generalizations are applied and how empirical results are communicated in practice.
ULO3: Estimate and interpret Panel Data Models and Dynamic Panel Data Models.
ULO4: Appreciate the relevance and limitations of the econometric methods used.

Assessment Tasks

Name	Weighting	Hurdle	Due
Assignment 2	20%	No	Week 14
Participation in tutorial	20%	No	All session
Assignment 1	40%	No	Week 12
Mid session online test	20%	No	Week 7

Assignment 2

Assessment Type [1]: Quantitative analysis task
Indicative Time on Task [2]: 17 hours
Due: **Week 14**
Weighting: **20%**

This assignment will consist of questions involving quantitative applied and theoretical tasks.

On successful completion you will be able to:

- Demonstrate knowledge of a range of generalizations of regression and how to apply them.
- Assess how linear models, time series models and various generalizations are applied and how empirical results are communicated in practice.
- Estimate and interpret Panel Data Models and Dynamic Panel Data Models.

Participation in tutorial

Assessment Type [1]: Participatory task
Indicative Time on Task [2]: 24 hours
Due: **All session**
Weighting: **20%**

Students are required to come prepared to tutorials (by completing tutorial questions) and to participate in class discussion.

On successful completion you will be able to:

- Demonstrate knowledge of a range of generalizations of regression and how to apply them.
- Assess how linear models, time series models and various generalizations are applied and how empirical results are communicated in practice.
- Estimate and interpret Panel Data Models and Dynamic Panel Data Models.

Assignment 1

Assessment Type [1]: Quantitative analysis task
Indicative Time on Task [2]: 30 hours
Due: **Week 12**
Weighting: **40%**

Students will replicate some of the empirical work presented in a recent journal article. This is a quantitative analysis task. It should be 2000 words or less not including tables and figures.

On successful completion you will be able to:

- Demonstrate knowledge of a range of generalizations of regression and how to apply them.
- Assess how linear models, time series models and various generalizations are applied and how empirical results are communicated in practice.
- Estimate and interpret Panel Data Models and Dynamic Panel Data Models.
- Appreciate the relevance and limitations of the econometric methods used.

Mid session online test

Assessment Type [1]: Quiz/Test
Indicative Time on Task [2]: 15 hours
Due: **Week 7**
Weighting: **20%**

Short answer questions; 60-minute test covering all of the material up to week 6.

On successful completion you will be able to:

- Demonstrate knowledge of a range of generalizations of regression and how to apply them.
- Assess how linear models, time series models and various generalizations are applied

and how empirical results are communicated in practice.

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[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

Lecture and Tutorial times

- Lectures for MQBS7040 are scheduled as per the class timetable available at http://www.timetables.mq.edu.au/
- There will be 3 hours teaching per week consisting of one two-hour lecture and one hour tutorial.
- Lectures and tutorials will be held in the computer labs and online.

Technology used and required

- If you are enrolled in this unit, you will be listed in the MQBS7040 online unit (iLearn). Login at http://ilearn.mq.edu.au/
- The site will be used to post online lectures, lecture slides, handouts, and assignments.
- The site contains a “forum” to which you may contribute. Please log in to the site on a regular basis.
- The main software used in MQBS7040 is Eviews which can be accessed through AppStream

Required and Recommended Texts and/or Materials

The recommended textbooks for MQBS7040 are:

1. Hill, C. H., Griffiths, W. E. and Lim, G. C. (2018) Principles of Econometrics (5th ed.) Wiley.
2. Wooldridge, J. (2008) Introductory Econometrics: A Modern Approach (4th ed.) Cengage Learning.

A list of prescribed reading will be developed on the website as the unit progresses.

Teaching and Learning Strategy

- Students are expected to complete all pre-lecture preparation tasks in advance of

that particular lecture.

- Please make notes summarizing the pre-lectures readings. These notes do not need to be submitted for assessment; however they will permit discussion of the questions and material in class.
- Students are expected to attend and participate in all classes.

Information

Details of the assessment tasks will be given in lectures and posted on iLearn. You should check iLearn regularly.

Unit Schedule

Week	Topic	Tutorial Topic
1	Stationarity, Integration and ARIMA Models	Introduction to software
2	Testing for bubbles	Computer exercise
3	VAR and VECM	Computer exercise
4	SVAR	Computer exercise
5	Impulse response functions	Computer exercise
6	Impulse response functions	Computer exercise
7	Impulse response functions	Mid term test
Mid	**Semester**	**Break**
8	Panel data models	Computer exercise
9	Panel data models	Computer exercise
10	Dynamic Panel data models	Computer exercise
11	Panel unit roots	Computer exercise
12	Panel cointegration	Computer exercise

13	Review	Computer exercise

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.