



# MQBS7040

## Quantitative Research Methods

Session 2, In person-scheduled-weekday, North Ryde 2023

*Macquarie Business School Faculty level units*

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## General Information

Unit convenor and teaching staff Lecturer Grant Richardson <a href="mailto:grant.richardson@mq.edu.au">grant.richardson@mq.edu.au</a>
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, structural VAR models, ARCH and GARCH models of asset return volatility, and panel data models. The unit will consider applications of these models to economic and financial data.

## 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:** Analyse and explain a range of generalised regression methods and their uses.
- ULO2:** Employ macroeconometric methods to economic and financial data in a variety of contexts and communicate the results.
- ULO3:** Critically analyse the relevance and limitations of the econometric methods used.

## General Assessment Information

Unless a Special Consideration request has been submitted and approved, a 5% penalty (of the total possible mark) will be applied each day a written assessment is not submitted, up until the 7th day (including weekends). After the 7th day, a grade of '0' will be awarded even if the assessment is submitted. Submission time for all written assessments is set at 11.55pm.

A 1-hour grace period is provided to students who experience a technical concern.

For any late submissions of time-sensitive tasks, such as scheduled tests/exams, performance assessments/presentations, and/or scheduled practical assessments/labs, students need to submit an application for Special Consideration.

## Assessment Tasks

Name	Weighting	Hurdle	Due
<a href="#"><u>Quantitative Analysis Task</u></a>	40%	No	Week 13
<a href="#"><u>Class Test (2)</u></a>	40%	No	Week 6 and Week 13
<a href="#"><u>In Class Analysis &amp; Discussion</u></a>	20%	No	Ongoing

### Quantitative Analysis Task

Assessment Type <sup>1</sup>: Problem set

Indicative Time on Task <sup>2</sup>: 30 hours

Due: **Week 13**

Weighting: **40%**

Students will be given a set of questions to analyse and interpret. Your analysis will number up to 2,000 words.

On successful completion you will be able to:

- Employ macroeconomic methods to economic and financial data in a variety of contexts and communicate the results.
- Critically analyse the relevance and limitations of the econometric methods used.

### Class Test (2)

Assessment Type <sup>1</sup>: Examination

Indicative Time on Task <sup>2</sup>: 40 hours

Due: **Week 6 and Week 13**

Weighting: **40%**

Two within session tests of 60 minutes each, worth 20% each. These will occur in week 6 and week 13.

On successful completion you will be able to:

- Analyse and explain a range of generalised regression methods and their uses.
- Critically analyse the relevance and limitations of the econometric methods used.

## In Class Analysis & Discussion

Assessment Type <sup>1</sup>: Participatory task

Indicative Time on Task <sup>2</sup>: 24 hours

Due: **Ongoing**

Weighting: **20%**

Students will analyse and discuss quantitative processes and examples.

On successful completion you will be able to:

- Analyse and explain a range of generalised regression methods and their uses.
- Employ macroeconometric methods to economic and financial data in a variety of contexts and communicate the results.

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<sup>1</sup> 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.

<sup>2</sup> 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

### Teaching Staff

#### Unit Convenor:

Professor Grant Richardson

E-mail: [grant.richardson@mq.edu.au](mailto:grant.richardson@mq.edu.au)

#### Contacting Staff

Professor Richardson is available for consultation at a mutually convenient day and time. Please send an email to Professor Richardson to arrange the meeting.

#### Classes

There are 3 hours of contact for learning per week consisting of 1 x 3-hour seminar (lecture and

tutorial).

The class is held each Wednesday 2-5 pm.

### **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 main software used in MQBS7040 is STATA which can be accessed through the Macquarie Business School.

### **Required and Recommended Texts and/or Materials**

We will use research papers that link to contemporary empirical research methods in accounting and finance.

Students can also refer to the current edition of Wooldridge, Jeffrey., M. 2010. *Econometric Analysis of Cross Section and Panel Data* (Second Edition). The MIT Press: Cambridge, Massachusetts.

Other important reading includes Roberts, M.R., and Whited, T.M. 2013. Endogeneity in empirical corporate finance. In: Constantinides, G.M., Harris, M., and Stulz, R.M. (Eds.). *Handbook of the Economics of Finance*. North Holland, Oxford, UK (Vol. 2A, Corporate Finance, pp.493-572).

### **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-lecture readings (if any). These notes do not need to be submitted for assessment; however, they will permit discussion of the 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.

## **Policies and Procedures**

Macquarie University policies and procedures are accessible from [Policy Central \(https://policies.mq.edu.au\)](https://policies.mq.edu.au). 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](#)
- [Assessment Procedure](#)
- [Complaints Resolution Procedure for Students and Members of the Public](#)
- [Special Consideration Policy](#)

Students seeking more policy resources can visit [Student Policies](https://students.mq.edu.au/support/study/policies) (<https://students.mq.edu.au/support/study/policies>). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

To find other policies relating to Teaching and Learning, visit [Policy Central](https://policies.mq.edu.au) (<https://policies.mq.edu.au>) and use the [search tool](#).

## Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: <https://students.mq.edu.au/admin/other-resources/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](http://ask.mq.edu.au) or if you are a Global MBA student contact [globalmba.support@mq.edu.au](mailto:globalmba.support@mq.edu.au)

## Academic Integrity

At Macquarie, we believe [academic integrity](#) – honesty, respect, trust, responsibility, fairness and courage – is at the core of learning, teaching and research. We recognise that meeting the expectations required to complete your assessments can be challenging. So, we offer you a range of resources and services to help you reach your potential, including free [online writing and maths support](#), [academic skills development](#) and [wellbeing consultations](#).

## Student Support

Macquarie University provides a range of support services for students. For details, visit <http://students.mq.edu.au/support/>

## The Writing Centre

[The Writing Centre](#) provides resources to develop your English language proficiency, academic writing, and communication skills.

- [Workshops](#)
- [Chat with a WriteWISE peer writing leader](#)
- [Access StudyWISE](#)
- [Upload an assignment to Studiosity](#)
- [Complete the 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

Macquarie University offers a range of [Student Support Services](#) including:

- [IT Support](#)
- [Accessibility and disability support](#) with study
- Mental health [support](#)
- [Safety support](#) to respond to bullying, harassment, sexual harassment and sexual assault
- [Social support including information about finances, tenancy and legal issues](#)
- [Student Advocacy](#) provides independent advice on MQ policies, procedures, and processes

## Student Enquiries

Got a question? Ask us via [AskMQ](#), or contact [Service Connect](#).

## IT Help

For help with University computer systems and technology, visit [http://www.mq.edu.au/about\\_us/offices\\_and\\_units/information\\_technology/help/](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.