



# FOBE730

## Quantitative Research Approaches in Business and Economics 1

S2 Evening 2019

*Business and Economics Faculty level units*

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## General Information

Unit convenor and teaching staff

Unit Convenor

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Credit points

4

Prerequisites

Admission to MRes

Corequisites

Co-badged status

Co-badged with FOBE830

Unit description

This unit provides students with an introduction to fundamental elements of research design and quantitative research approaches within the business and economics. It seeks to develop students' understanding of the contexts in which quantitative research can be undertaken and the ability to analyse, conduct, and evaluate quantitative forms of research.

## 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:

Review and interpret the basic rationale and application of relevant quantitative approaches and analyses in disciplinary contexts of management, accounting and marketing research.

Formulate appropriate hypotheses and propose the most appropriate research design for a research project.

Use specific statistical techniques to analyse data and explain present results.

## General Assessment Information

Instructions in regard to how to submit each assessment will be provided on iLearn.

## Assessment Tasks

Name	Weighting	Hurdle	Due
<u>Research paper critique</u>	15%	No	02/09/2019
<u>Research proposal</u>	30%	No	11/10/2019
<u>Data analysis and reporting</u>	55%	No	12/11/2019

### Research paper critique

Due: **02/09/2019**

Weighting: **15%**

This assignment requires students to provide a critical review of a research paper and draw an appropriate conclusion from their critical analysis. More information will be provided on iLearn in due course.

On successful completion you will be able to:

- Review and interpret the basic rationale and application of relevant quantitative approaches and analyses in disciplinary contexts of management, accounting and marketing research.

### Research proposal

Due: **11/10/2019**

Weighting: **30%**

This assignment requires students to develop a research project on a topic of their own choice using the survey method. More information will be provided on iLearn in due course.

On successful completion you will be able to:

- Review and interpret the basic rationale and application of relevant quantitative

approaches and analyses in disciplinary contexts of management, accounting and marketing research.

- Formulate appropriate hypotheses and propose the most appropriate research design for a research project.

## Data analysis and reporting

Due: **12/11/2019**

Weighting: **55%**

This assessment will provide students with raw data in a general business discipline to analyse and to write an analytical report in response to the given research questions. More information will be provided on iLearn in due course.

On successful completion you will be able to:

- Use specific statistical techniques to analyse data and explain present results.

## Delivery and Resources

This unit is structured around attendance at one 3 hour seminar per week. The class timetable can be found on the university web site <https://timetables.mq.edu.au/>. All important information including weekly seminar lectures, assessment details, important announcements and staff contact details can be found at the unit iLearn website.

The following are recommended books related to the unit. They are available in the library.

- Singleton, JR., R. A. and Straits, B. C. (2017) *Approaches to Social Research*, 6th edition, Oxford University Press.
- Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford Publications.
- Wooldridge, J. M. (2020) *Introductory Econometrics A Modern Approach*, 7th edition, Cengage Learning.

## Unit Schedule

Class week	Date	Topics	Content

1 SSu	30 July	Introduction to research	<p>Research flow:</p> <ol style="list-style-type: none"> <li>1. Defining the problem</li> <li>2. Developing a research approach</li> <li>3. Formulating a research design</li> <li>4. Collecting data</li> <li>5. Preparing and analysing data</li> <li>6. Preparing and presenting the report results &amp; findings</li> </ol>
2 SSu	6 August	Elements of Research Design	<p>Origins of research topics;</p> <p>Units of analysis;</p> <p>Types of variables;</p> <p>Relationships;</p> <p>Stating problems and hypotheses (include explanations of different types of hypotheses).;</p> <p>Research purposes and research design (leading to the next week topic)</p>
3 SSu	13 August	Formulating a research design I	<p>Measurement conceptualisation</p> <p>Measurement operationalisation</p> <p>Levels of measurement</p> <p>Validity and Reliability</p>
4 SSu	20 August	Formulating a research design II	<p>Why Sampling</p> <p>Population definition</p> <p>Sampling designs including probability sampling (i.e. Simple random sampling vs systematic sampling vs stratified sampling vs cluster sampling) and Nonprobability sampling (convenience sampling, purposive sampling, quota sampling).</p> <p>Factors affecting choice of sampling testing</p>
5 SSu	27 August	Data collection using survey	<p>Survey design and administration</p> <p>Introduction to Qualtrics</p>
6 SSu	3 Sep	Introduction to SPSS	<p>Enter survey data in SPSS</p> <p>Demonstrate key tabs in SPSS</p> <p>Descriptive statistics</p>

7 PP	10 Sep	Analysing and reporting I	Data preparation  Testing for normality and distributional assumptions  Exploratory factor analysis  Reliability and validity testing
<b>Mid session break 16<sup>th</sup> to 29<sup>th</sup> Sep</b>			
8 pp	1 Oct	Analysing and reporting IV	Hypotheses testing  Types of tests:  One-sample t-test  Independent-samples t-test  Paired-samples t-test
9 NL	8 Oct	Analysing and reporting II	ANOVA  Cross-tabulation  Correlation  Regression
10 NL	15 Oct	Analysing and reporting III	Multiple regression analysis  Logistic regression
11 SS	22 Oct	Analysing and reporting V	Multiple moderated regression analysis  Multiple mediated regression analysis
12 SS	29 Oct	Analysing and reporting VI	Multiple moderated and mediated analysis (moderated mediation analyses)
13 NL/ SS	5 Nov	Consultation -Data Analysis	By appointment

Note:

SSu: Sophia Su

PP: Peter Petocz

SS: Shahin Sharifi

NL: Nidthida Lin

## 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) (<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.*)

Undergraduate students seeking more policy resources can visit the [Student Policy Gateway](https://students.mq.edu.au/support/study/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) (<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](https://ask.mq.edu.au) or if you are a Global MBA student contact [globalmba.support@mq.edu.au](mailto: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](http://mq.edu.au/learningskills)) provides academic writing resources and study strategies to improve your marks and take control of your study.

- [Workshops](#)
- [StudyWise](#)
- [Academic Integrity Module for Students](#)
- [Ask a Learning Adviser](#)

## 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](http://ask.mq.edu.au)

If you are a Global MBA student contact [globalmba.support@mq.edu.au](mailto: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/](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.

## Graduate Capabilities

### PG - Discipline Knowledge and Skills

Our postgraduates will be able to demonstrate a significantly enhanced depth and breadth of knowledge, scholarly understanding, and specific subject content knowledge in their chosen fields.

This graduate capability is supported by:

### Learning outcomes

- Review and interpret the basic rationale and application of relevant quantitative approaches and analyses in disciplinary contexts of management, accounting and marketing research.
- Formulate appropriate hypotheses and propose the most appropriate research design for



a research project.

- Use specific statistical techniques to analyse data and explain present results.

## **Assessment tasks**

- Research paper critique
- Research proposal
- Data analysis and reporting

## **PG - Critical, Analytical and Integrative Thinking**

Our postgraduates will be capable of utilising and reflecting on prior knowledge and experience, of applying higher level critical thinking skills, and of integrating and synthesising learning and knowledge from a range of sources and environments. A characteristic of this form of thinking is the generation of new, professionally oriented knowledge through personal or group-based critique of practice and theory.

This graduate capability is supported by:

## **Learning outcomes**

- Review and interpret the basic rationale and application of relevant quantitative approaches and analyses in disciplinary contexts of management, accounting and marketing research.
- Formulate appropriate hypotheses and propose the most appropriate research design for a research project.
- Use specific statistical techniques to analyse data and explain present results.

## **Assessment tasks**

- Research paper critique
- Research proposal
- Data analysis and reporting

## **PG - Research and Problem Solving Capability**

Our postgraduates will be capable of systematic enquiry; able to use research skills to create new knowledge that can be applied to real world issues, or contribute to a field of study or practice to enhance society. They will be capable of creative questioning, problem finding and problem solving.

This graduate capability is supported by:

## **Learning outcomes**

- Review and interpret the basic rationale and application of relevant quantitative approaches and analyses in disciplinary contexts of management, accounting and

marketing research.

- Formulate appropriate hypotheses and propose the most appropriate research design for a research project.

## **Assessment tasks**

- Research paper critique
- Research proposal

## **PG - Effective Communication**

Our postgraduates will be able to communicate effectively and convey their views to different social, cultural, and professional audiences. They will be able to use a variety of technologically supported media to communicate with empathy using a range of written, spoken or visual formats.

This graduate capability is supported by:

## **Learning outcomes**

- Formulate appropriate hypotheses and propose the most appropriate research design for a research project.
- Use specific statistical techniques to analyse data and explain present results.

## **Assessment tasks**

- Research proposal
- Data analysis and reporting