FOBE730

Quantitative Research Approaches in Business and Economics 1

S1 Evening 2016

Business and Economics Faculty level units

Contents

General Information

Unit convenor and teaching staff Unit convenor/ Lecturer Hume Winzar hume.winzar@mq.edu.au
Credit points 4
Prerequisites Admission to MRes
Corequisites
Co-badged status
Unit description This unit provides students with an introduction to 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:

Understand the basic rationale and application of relevant quantitative approaches in relating disciplinary contexts of business, economics, finance, management, and marketing.

Be familiar with components of a few relevant quantitative methods in the field of interest and own the capability of application of them to the research project.

Own the capacity of Identifying, reasoning (or questioning), and applying a particular type of data and data collection procedure in terms of its appropriateness to be used, and furthermore evaluating risks of doing so.

Demonstrated capability of arguing for or against adopting appropriate quantitative skills to solve problems in scholarly research and putting them in a sound communication

manner.

General Assessment Information

Details of these assessment tasks will be given in the lecturers, and will be posted on the iLearn.

For each of the assessment tasks, individualised written feedback will be provided to students. If the task is deemed unsatisfactory, you will be expected to revise and resubmit it for reassessment.

Assessment Tasks

Name	Weighting	Due
Comment on Methodology	25%	Week 4
Comment on Data Analysis	25%	Week 6
Research Proposal	40%	Week 13
Class Discussion	10%	Week 2-6, 8-13

Comment on Methodology

Due: **Week 4**
Weighting: **25%**

In this assignment, students should write up a review on the quantitative method (1,000-1,200 words) that has been applied in a discipline based journal paper. The assignment of this part is worth for 25% of the course grade, with report 15% and presentation 10% of unit marks respectively.

Submission: This assignment is due **in Week 4** for the individual report and the group presentation. A hard copy of the assignment needs to be submitted to the lecturer **AND** a copy uploaded to "Turn-it-in" (via iLearn).

Extension: No extensions will be granted generally unless there is a special consideration approved by the convenor before it occurs.

Penalties: Students who are absent or do not participate in the group presentation will get a "0" mark automatically. Students who have not submitted the written task prior to the deadline will get a "0" mark unless there is a compelling reason to make an exception (for exception, please refer to the "extension" above).

Note: No transfer of marks from this to other assessments.

On successful completion you will be able to:
- Understand the basic rationale and application of relevant quantitative approaches in relating disciplinary contexts of business, economics, finance, management, and

marketing.

- Be familiar with components of a few relevant quantitative methods in the field of interest and own the capability of application of them to the research project.
- Demonstrated capability of arguing for or against adopting appropriate quantitative skills to solve problems in scholarly research and putting them in a sound communication manner.

Comment on Data Analysis

Due: **Week 6**
Weighting: **25%**

In this assignment, students should write up a review (1,000-1,200 words) on the statistical analysis that has been applied in a journal paper (i.e. discipline based). The assignment of this part (25%) is to be completed as a group (for presentation) and as an individual piece of work (for the report), with report 15% and presentation 10% of unit marks respectively.

Submission: This assignment is due in **Week 6** for the individual report and the group presentation. A hard copy of the assignment needs to be submitted to the lecturer **AND** a copy uploaded to "Turn-it-in" (via iLearn).

Extension: No extensions will be granted generally unless there is a special consideration approved by the convenor before it occurs.

Penalties: Students who are absent or do not participate in the group presentation will get a "0" mark automatically. Students who have not submitted the written task prior to the deadline will get a "0" mark unless there is a compelling reason to make an exception (for exception, please refer to the "extension" above).

Note: No transfer of marks from this to other assessments.

On successful completion you will be able to:

- Understand the basic rationale and application of relevant quantitative approaches in relating disciplinary contexts of business, economics, finance, management, and marketing.
- Own the capacity of Identifying, reasoning (or questioning), and applying a particular type of data and data collection procedure in terms of its appropriateness to be used, and furthermore evaluating risks of doing so.
- Demonstrated capability of arguing for or against adopting appropriate quantitative skills to solve problems in scholarly research and putting them in a sound communication manner.

Research Proposal

Due: **Week 13**
Weighting: **40%**

- **Option 1- Research Proposal (ECON and AFAS students)**

In this assessment, ECON/AFAS students will write an individual research proposal. The proposal should range from **3,000-3,500** words in length (including tables, figures, and reference while excluding abstract and the appendix is applicable). This assignment is due in **Week 13**. A hard copy needs to be submitted to the lecturer AND a copy uploaded to "Turn-it-in" (via iLearn). The assignment is worth for 40% of the course grade. A more detailed project brief will be provided separately.

- **Option 2- Quantitative Method Test (MM and ACCG students)**

In this assessment, MM/ACCG students will receive a quantitative test to be submitted online in Week 13. This assessment will provide students 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 in iLearn.

Submission: This major assignment is due in **Week 13** for the individual report. A soft copy needs to be uploaded to "Turn-it-in" (via iLearn).

Extension: No extensions will be granted generally unless there is a special consideration approved by the convenor before it occurs.

Penalties: Late submissions will be accepted up to 48 hours after the submission deadline. There will be a deduction of 10% of the total quality-based marks for *EACH 24 HOURS* period or part thereof that the submission is late (for example, being 25 hours late in submission will occur 20% mark penalty). This penalty does not apply for the cases in which an application for special consideration has been made and applied.

Note: No transfer of marks from this assessment to other assessments.

On successful completion you will be able to:
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- Be familiar with components of a few relevant quantitative methods in the field of interest and own the capability of application of them to the research project.
- Own the capacity of Identifying, reasoning (or questioning), and applying a particular type of data and data collection procedure in terms of its appropriateness to be used, and furthermore evaluating risks of doing so.

Class Discussion

Due: **Week 2-6, 8-13**
Weighting: **10%**

Every enrolled student is required to attend the weekly lectures and tutorials punctually and actively participate in class discussions in a contributory manner.

Submission: Weekly attendance is recorded in every class. A full attendance record will not necessarily give students a full mark (10%) of this assessment, rather, a full attendance together with a well-demonstrated effort of class participation will do.

Extension: N.A.

Penalties: Missing every single class without any compelling reason will incur one mark's reduction directly from this session.

Note: No transfer of marks from this to other assessments.

On successful completion you will be able to:
- Understand the basic rationale and application of relevant quantitative approaches in relating disciplinary contexts of business, economics, finance, management, and marketing.
- Be familiar with components of a few relevant quantitative methods in the field of interest and own the capability of application of them to the research project.
- Own the capacity of Identifying, reasoning (or questioning), and applying a particular type of data and data collection procedure in terms of its appropriateness to be used, and furthermore evaluating risks of doing so.
- Demonstrated capability of arguing for or against adopting appropriate quantitative skills to solve problems in scholarly research and putting them in a sound communication manner.

Delivery and Resources

CLASS SCHEDULE

- Classes for FOBE730 are held on Tuesday at 6:00 pm-9:00 pm at announced class venue (with details later soon).
- Dr. Jie Meng conveys the generic section of this course in Week 1-6.
- From Week 7 to 13, students will split into MM & ACCG stream and ECON & AFAS stream for different classes (MM&ACCG by Dr. Jie Meng and ECON&AFAS by Dr. Chris Heaton) and different assessments.
- Each student will be 3 hours face-to-face teaching per week consisting of one 1.5-2 hour

lecture/seminar plus one 1-1.5 hour tutorial of class activities aided by computer, discussions and so forth. Please bring a calculator and lecture notes to all classes.

- For latest information about timetables for classes, please refer to the University web site at: http://www.timetables.mq.edu.au/

TEXTBOOKS AND READINGS

While there is no set textbook for FOBE730, the following books are **recommended**:

- Glyn Burton, George Carroll and Stuart Wall (2001) *Quantitative Methods for Business and Economics*(2nd Edition), Financial Times/Prentice Hall. ISBN: 0273655701

Or

- Frank Dewhurst (2006) *Quantitative Methods for Business and Management* (2nd Edition), McGraw-Hill Higher Education. ISBN-10: 0077109023

Other Useful Books:

- Sanjiv Jaggia and Alison Kelly (2013) *Business Statistics: Communicating with Numbers.* McGraw-Hill Higher Education. ISBN13: 9780073373669
- Robert B Burns and Richard A Burns (2008) *Business Research Methods and Statistics Using SPSS*, SAGE Publications, Inc. ISBN-10: 1412945305
- Peter Allen, Kellie Bennett, and Brody Heritage (2014) SPSS Statistics Version 22: A Practical Guide (3rd Edition), Cengage. ISBN-10: 0170348970,
  ISBN-13: 9780170348973

TECHNOLOGY USED AND REQUIRED

Software and technology required: (1) A personal computer with word processing software and Microsoft PowerPoint; (2) Access to iLearn for course materials; (3) Access to the SPSS software for data analysis.

As an FBE HDR candidate, you will be enrolled in the "FBE-HDR Transition to Research" online unit (iLearn). Login at http://ilearn.mq.edu.au/

If you cannot view this unit in your Online Units, please contact Unit Convenor (Email: jie.meng@mq.edu.au) for the instance. The site will be used to post lecture slides, handouts, and assignment instructions *after* each class, for those who miss their distribution in class.

The lecture notes will be posted on iLearn at https://ilearn.mq.edu.au on a weekly base. The Echo360 recording (video or audio) of lectures/seminars is NOT applied to this unit.

WHAT IS REQUIRED TO COMPLETE THE UNIT SATISFACTORILY:

This unit is delivered in the seminar pattern. Students are expected to be active and engaged individual learners as well as cooperative team players to complete all tasks as instructed, inclusive of before-class reading, after-class review, desktop work, presentation, and to participate actively in class discussion. To get these above tasks accomplished, a certain level of independent and critical thinking will be inherently needed.

Unit Schedule

WEEKLY SUMMARY OF COURSE: SEMESTER 1 – 2016

Week	Date	Topic	Tutorial
1	1 Mar	Introduction to quantitative research methods+ Topic Search & Group Allocation	Seminar Class Discussion
2	8 Mar	Primary Data- sampling and data collection	Seminar Class Discussion
3	15 Mar	Descriptive Analysis and Data Presentation	Seminar Class Discussion
4	22 Mar	Test of Difference -t-test, ANOVA	Lab Activity + Additional Presentation I (in seminar room)
5	29 Mar	Test of Association – Correlation	Lab Activity
6	5 Apr	Test of Association – Regression Part I	Lab Activity + Additional Presentation II (in seminar room)
From 11 Apr to 24 Apr		**Mid semester break**	
7	26 Apr	Test of Association – Regression Part II (MM & ACCG) Test of Association – Regression Part II (ECON & AFAS)	Lab Activity (MM & ACCG) Lab Activity (ECON & AFAS)
8	3 May	Parametric and Non-parametric tests (MM & ACCG) Multiple Regression: Mis-specification Tests (ECON & AFAS)	Lab Activity (MM & ACCG) Lab Activity (ECON & AFAS)

9	10 May	Reliability, Validity & Exploratory Factor Analysis (MM & ACCG)	Lab Activity (MM & ACCG)
		Panel Data Models: pooled and fixed effect models (ECON & AFAS)	Lab Activity (ECON & AFAS)
10	17 May	Structured Equation Model- Part I (MM & ACCG)	Seminar
		Panel Data Models: Random Effects (ECON & AFAS)	Class Discussion (MM & ACCG)
			Lab Activity (ECON & AFAS)
11	24 May	Structured Equation Model- Part II (MM & ACCG)	Seminar
		Panel Data Models: Comparing Random Effects and Fixed Effects Estimators (ECON & AFAS)	Class Discussion (MM & ACCG)
			Lab Activity (ECON & AFAS)
12	31 May	Causality and Experiment Design (MM & ACCG)	Seminar
		Dynamic Panel Data Models (ECON & AFAS)	Class Discussion (MM & ACCG)
			Lab Activity (ECON & AFAS)
13	7 Jun	Course Recap and Major Assessment	Research Proposal (ECON & AFAS)
			Quantitative Test (MM & ACCG)

Learning and Teaching Activities

Lectures and Seminars

Dr. Jie Meng conveys the generic section of this course in Week 1-6. From Week 7 to 13, students will split into MM & ACCG stream and ECON & AFAS stream for different classes (MM & ACCG by Dr. Jie Meng and ECON & AFAS by Dr. Chris Heaton) and different assessments.

Class Discussion

In-class discussion highlights abstract concepts and helps to apply different techniques and enriches class learning experience.

Before-class Preview & Post-class Review

Students are expected to complete all pre-class preparation in advance of that particular class and all the post-class review tasks following class activities. Material that does not come from online unit will be provided by the lecturer/unit coordinator. It is advisable that students make notes summarising the pre-class readings. These notes do not need to be submitted for assessment; however they will allow discussion of the questions and material in class. It is expected that students will attend and participate in all classes. If attendance is below 80%, the student will be given an unsatisfactory result.

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central. Students should be aware of the following policies in particular with regard to Learning and Teaching:

Academic Honesty Policy http://mq.edu.au/policy/docs/academic_honesty/policy.html

New Assessment Policy in effect from Session 2 2016 http://mq.edu.au/policy/docs/assessment/policy_2016.html. For more information visit http://students.mq.edu.au/events/2016/07/19/new_assessment_policy_in_place_from_session_2/

Assessment Policy prior to Session 2 2016 http://mq.edu.au/policy/docs/assessment/policy.html

Grading Policy prior to Session 2 2016 http://mq.edu.au/policy/docs/grading/policy.html

Grade Appeal Policy http://mq.edu.au/policy/docs/gradeappeal/policy.html

Complaint Management Procedure for Students and Members of the Public http://www.mq.edu.au/policy/docs/complaint_management/procedure.html

Disruption to Studies Policy http://www.mq.edu.au/policy/docs/disruption_studies/policy.html *The Disruption to Studies Policy is effective from March 3 2014 and replaces the Special Consideration Policy.*

In addition, a number of other policies can be found in the Learning and Teaching Category of 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/support/student_conduct/

Results

Results shown in *iLearn*, 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.

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 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

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.

Graduate Capabilities

PG - Capable of Professional and Personal Judgment and Initiative

Our postgraduates will demonstrate a high standard of discernment and common sense in their professional and personal judgment. They will have the ability to make informed choices and decisions that reflect both the nature of their professional work and their personal perspectives.

This graduate capability is supported by:

Learning outcomes

- Own the capacity of Identifying, reasoning (or questioning), and applying a particular type of data and data collection procedure in terms of its appropriateness to be used, and furthermore evaluating risks of doing so.
- Demonstrated capability of arguing for or against adopting appropriate quantitative skills to solve problems in scholarly research and putting them in a sound communication manner.

Assessment task

- Class Discussion

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 outcome

- Understand the basic rationale and application of relevant quantitative approaches in relating disciplinary contexts of business, economics, finance, management, and marketing.

Assessment tasks

- Comment on Methodology
- Comment on Data Analysis
- Research Proposal

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

- Understand the basic rationale and application of relevant quantitative approaches in relating disciplinary contexts of business, economics, finance, management, and marketing.
- Be familiar with components of a few relevant quantitative methods in the field of interest and own the capability of application of them to the research project.
- Own the capacity of Identifying, reasoning (or questioning), and applying a particular type of data and data collection procedure in terms of its appropriateness to be used, and furthermore evaluating risks of doing so.

Assessment tasks

- Comment on Methodology
- Comment on Data Analysis
- Research Proposal
- Class Discussion

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

- Be familiar with components of a few relevant quantitative methods in the field of interest

and own the capability of application of them to the research project.

- Own the capacity of Identifying, reasoning (or questioning), and applying a particular type of data and data collection procedure in terms of its appropriateness to be used, and furthermore evaluating risks of doing so.

Assessment task

- 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 outcome

- Demonstrated capability of arguing for or against adopting appropriate quantitative skills to solve problems in scholarly research and putting them in a sound communication manner.

Assessment tasks

- Comment on Methodology
- Comment on Data Analysis
- Research Proposal
- Class Discussion

Changes from Previous Offering

- Feedback of assessment will be provided only to students generally unless there is a specific need to discuss with the student's academic supervisor.
- One newly recommended textbook (Allen, Bennett and Heritage, 2014) is added to the book list.
- Timetable of weekly teaching activities has been update with a reference to the university calendar.

Research and Practice

- The unit is designed to equip students to embark on their individual higher degree

> research projects.

- Because the unit focuses on developing students' academic literacy skills, a number of reading, writing and analytical tasks are set. Responses to some of these tasks are discussed in class, whereas others will be submitted for assessment. The tasks will contribute directly to the Research Protocol submission and/or PhD thesis.
- The unit is delivered in accordance with current academic teaching and learning pedagogies.

As a guidance to direct students' future research outcomes, the following academic journals with high academic credit will assist students to link what is learned from this unit with a specific disciplinary background that fits one's research interest.

Examples of discipline-based journals*:

Accounting and Corporate Governance	Applied Finance and Actuarial Study
Journal of Accounting Research	Journal of Finance
Contemporary Accounting Research	Journal of Financial and Quantitative Analysis
Accounting Research Journal	Journal of Empirical Finance
Accounting and Finance	Annals of Actuarial Science
Managerial Accounting Journal	Australian Actuarial Journal
Journal of Accounting and Economics	Asia-Pacific Journal of Risk and Insurance
Economics	**Marketing and Management**
Econometrica	Journal of Marketing Research
American Economic Review	Journal of the Academy of Marketing Science
Journal of Economic Theory	Asia Pacific Journal of Marketing and Logistics
Journal of International Economics	Academy of Management Journal
The Journal of Industrial Economics	Organisation studies
Journal of Public Economics	Journal of International Business Studies

*The selected journal lists are provided to assist students searching for discipline-based quantitative research. More comprehensive journals lists are available on the course website.

In addition, a list of other useful references may be available from the Research at Faculty of Business and Economics webpage (www.businessandeconomics.mq.edu.au/research) from diversified research interests.

Changes since First Published

Date	Description
18/07/2016	new uc to check grades

Changes since First Published