



FOAR7009

Research Theme 5: Quantitative Methods

Session 1, Weekday attendance, North Ryde 2020

Arts Faculty level units

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General Information

Unit convenor and teaching staff

Unit Convenor

Hangyoung Lee

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Contact via Email

Department of Sociology, Level 2, AHH (16 University Avenue)

By appointment

Credit points

10

Prerequisites

Admission to BPhil/MRes

Corequisites

Co-badged status

Unit description

Social surveys are now used widely in policy-making, public debate, and social research. This unit provides students with a practical and theoretical guide to the use of surveys in social research. The unit looks closely at how to administer social surveys, how to write good survey questions and the debates about the potentials and limits of this methodology in the social sciences. Social surveys are usually designed to enable the statistical analysis of survey data, so the second part of the unit is dedicated to introducing students to a range of statistical models including multiple regression model. In this unit, students will learn R language for analysing survey 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: Understand the link between quantitative research design, survey procedure and statistical analysis.

ULO2: Understand quantitative social science research critically.

ULO3: Analyse survey data using appropriate statistical models.

ULO4: Carry out a statistical analysis using R.

ULO5: Interpret statistical outputs in plain language.

ULO6: Conduct original research using quantitative research methods.

Assessment Tasks

Coronavirus (COVID-19) Update

Assessment details are no longer provided here as a result of changes due to the Coronavirus (COVID-19) pandemic.

Students should consult [iLearn](#) for revised unit information.

[Find out more about the Coronavirus \(COVID-19\) and potential impacts on staff and students](#)

General Assessment Information

Academic Integrity

Academic Integrity is an intergral part of the core values and principles contained in the Macquarie University Ethics Statement. Its fundamental principle is that all staff and students act with integrity in the creation, development, application and use of ideas and information. This means that:

- All academic work claimed as original is the work of the author making the claim
- All academic collaborations are acknowledged
- Academic work is not falsified in any way
- When the ideas of others are used, these ideas are acknowledged appropriately
- Self-plagiarism (resubmitting your own work - including past assignments for this or other units - without attribution) is an unacceptable academic activity

More information is available from *Policy Central* [here](#).

University Grading Policy

The grade that a student receives will signify their overall performance in meeting the learning outcomes of the unit of study. Graded units will use the following grades

HD	High Distinction	85-100
D	Distinction	75-84
Cr	Credit	65-74
P	Pass	50-64
F	Fail	0-49

Return of Marked Work

As per university policy, written assessments will be returned to students within three weeks of the submission date. Early assignments will not be marked early.

Special Consideration (Extensions)

The University recognises that students may experience events or conditions that adversely affect their academic performance. If you experience serious and unavoidable difficulties at exam time or when assessment tasks are due, you can consider applying for Special Consideration.

You need to show that the circumstances:

1. were serious, unexpected and unavoidable
2. were beyond your control
3. caused substantial disruption to your academic work
4. substantially interfered with your otherwise satisfactory fulfilment of the unit requirements
5. lasted at least three consecutive days or a total of 5 days within the teaching period and prevented completion of an assessment task scheduled for a specific date.

More information about Special Consideration is available [here](#).

Late Penalties

Unless a Special Consideration request has been submitted and approved, (a) a penalty for lateness will apply – two (2) marks out of 100 will be deducted per day for assignments submitted after the due date – and (b) no assignment will be accepted more than seven (7) days (incl. weekends) after the original submission deadline. No late submissions will be accepted for timed assessments – e.g. quizzes.

Campus Wellbeing

Macquarie University offers a range of wellbeing services (including [but not limited to]: health, welfare, counselling, disability and student advocacy services) that are available to you at any time during your studies. Campus Wellbeing is here to support you and help you succeed, both academically and personally. More information is available [here](#).

Delivery and Resources

Coronavirus (COVID-19) Update

Any references to on-campus delivery below may no longer be relevant due to COVID-19.

Please check here for updated delivery information: https://ask.mq.edu.au/account/pub/display/unit_status

Lecture and workshop times

Lectures will take place on **Mondays** from 6 pm to 7:30 pm in **12 Second Way - 204 Tute Rm.** Lecture recordings and visual materials can also be accessed using **ECHO360** on the **iLearn**.

Workshops will take place on **Tuesdays** from 6 pm to 8 pm in **4 Western Rd - 311 Tute Rm.**

Textbooks

This course draws on two required textbooks.

- Vaus, David de (2014) *Surveys in Social Research*, 6th Edition, Allen&Unwin.
- Illowsky, Barbara and Susan Dean (2017) *Introductory Statistics*, OpenStax. (Available for free at <https://openstax.org/details/books/introductory-statistics>)

These textbooks can be accessed via **Leganto** on the iLearn.

Online Learning Platform

methods101.com is an online learning platform of quantitative research methods managed by me and Dr Nicholas Harrigan (Senior Lecturer of Sociology at MQ). This website provides online resources to help students learn statistical software programs.

Technology used

The following technologies are used in the course:

iLearn

Important information about the weekly schedule for the course, course readings and assessment are all available on the course **iLearn** page. If you do not have access, please contact IT help. **You are required to check iLearn and your student email regularly for course updates and information.**

AppStream

AppStream is the university's a new application streaming service which provides students access to existing iLab applications via browser from anywhere, anytime, on any device. Students do not need to install a client on their device to access applications. Google Chrome is

recommended browser for AppStream. Login to mq.okta.com with your MQ OneID to access AppStream applications.

Turnitin and GradeMark

The written assessment for the course needs to be submitted via **Turnitin**. A link to **Turnitin** is available via the Assessments tab on the iLearn page. Please contact the convenor if you cannot find it (do not leave it until the due date of the assessment). Assessments will be marked via **GradeMark** and returned to students electronically.

R/RStudio

R is the name of the statistical programming language, and **RStudio** is a convenient interface of **R**. You can download both **R** and **RStudio** for free at:

- **R**: <https://www.r-project.org>
- **RStudio**: <https://www.rstudio.com>

R and **RStudio** are available in **AppStream** as well (see above). Week 2 workshop will introduce how to install **R** and **RStudio**. After setting up **R** and **RStudio**, it is also necessary to install the following packages for the course:

- summarytools
- sjPlot
- sjmisc
- sjlabelled
- tidyverse
- gmodels
- gplots

Unit Schedule

Coronavirus (COVID-19) Update

The unit schedule/topics and any references to on-campus delivery below may no longer be relevant due to COVID-19. Please consult [iLearn](#) for latest details, and check here for updated delivery information: https://ask.mq.edu.au/account/pub/display/unit_status

Week	Lecture	Workshop
1	Introduction to Survey Research Methods	Discussing Your Research
2	Research Design	Choosing a Research Problem Introducing R and RStudio
3	Unit of Analysis and Empirical Measures	Finding Literature Creating Datasets
4	Ethics of Survey Research and Sampling Method	Searching for Datasets Playing with Variables
5	Survey Questionnaires and Survey Administration	No workshop (Will be used for consultation hours for the quiz)
6	Descriptive Statistics	Online Survey Tools Recoding Variables
7	Measures of Variability and Normal Distribution (1)	Formulating Hypotheses Univariate Statistics (1)
8	Normal Distribution (2) and Sampling Distribution	Literature review Univariate Statistics (2)
9	Confidence Intervals	Reference Management Software Normal Distribution and Confidence Intervals
10	Hypothesis Test	Analysing Your Data Hypothesis Test (T-test)
11	Bivariate Table and Chi-square	Analysing Your Data Crosstab & Chi-square Test
12	Correlation and Simple Regression	Analysing Your Data Correlation and Simple Regression
13	Multiple Regression	Analysing Your Data Multiple Regression

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.*)

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](http://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central) (<http://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.