PSYC8863

Research Design and Evaluation

Session 1, Weekday attendance, North Ryde 2020

Department of Psychology

Contents

Disclaimer

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General Information

Unit convenor and teaching staff Mike Jones mike.jones@mq.edu.au
Credit points 10
Prerequisites Admission to MClinPsych or MClinNeuro or MOrgPsych
Corequisites
Co-badged status
Unit description This unit exposes students to a range of advanced quantitative statistical methods that are useful in research in psychology. The intent of the unit is to explain underlying concepts rather than teach deeper technical detail. Students completing the unit should have an appreciation of when a variety of advanced statistical methods are appropriate, be able to undertake simple analyses, understand how to interpret the results of these analyses and how to assess publications that have used these methods. Content includes a refresher on statistical study design, critical appraisal of published research, common data analysis methods and a number of methods for longitudinal and complex-sampled data, latent variable models as well as meta-analysis.

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: Design a study and formulate appropriate hypotheses and ways of testing them.

ULO2: Select analytic techniques that are appropriate for the data and which allow valid tests of hypotheses, and research questions to be answered.

ULO3: Apply a selection of Stata commands and procedures to undertake quantitative statistical analyses.

ULO4: Knowledgably apply the specific analytic methods learnt in their optional modules.

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

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

Structure of the unit

Every student will study five (5) learning modules in this unit of which four are compulsory topics and the remaining is selected by the student from three (3) available elective modules. Compulsory modules are selected on the basis of being useful topics for any quantitative research topic, while the student-selected modules allow students to somewhat tailor the unit to their individual needs.

Compulsory modules (all must be undertaken)

1. Design and sample size determination
2. Data manipulation and basic statistical analysis in Stata (although students may use other software if they prefer)
3. Revision of the General Linear model using Stata
4. Dealing with missing values in data

Student-selected modules (select one)

1. Latent variable models
2. Multi-level and Longitudinal models
3. Meta-analysis

Format of the unit

The unit is largely delivered by downloadable video lectures that combine a classical lecture with demonstration of practical application using Stata and are available for download at the start of or early in semester. All compulsory topics do, however, have one-hour face-to-face tutorial

sessions at which attendance is strongly recommended but not compulsory. Note that this one session (week 7) will not be recorded to minimise risk of answers being widely disseminated. All elective modules have an associated in-person workshop at which attendance is strongly recommended but also not compulsory. The purpose of the workshops is to provide an opportunity to address unresolved questions prior to the final exam. **Important note**: To achieve this it will be necessary for each student to have viewed the module video and thought about their project prior to attending the workshop.

The unit is graded using the standard categories of Fail, Pass, Credit, Distinction and High Distinction. Further details concerning the exam will be provided during the unit. The project report will be submitted to the Grademark system that is part of iLearn. You may collaborate in preparatory work for assignments; however, the report submitted must be of your own work. If two or more students are found to have submitted material which is identical, or near to identical, they will be asked to re-submit the material from the affected section or else share the marks with the other student(s) who submitted the same material. NB: Make sure you keep a complete copy of each of your submitted works should it be needed. This unit does not publish previous end-of-semester exam papers due to the assessment format which involves multiple choice questions drawn from a bank of questions which have undergone a process of development and validation to assess a wide range of concepts in this unit. Assessment quality can only be ensured by maintaining the integrity of the question bank rather than creating entirely new questions every year. However a practice exam will be provided via iLearn near the end of semester.

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	Week Starting	Workshop content	Assessment
1	24-February	Admin & unit overview	
2	2-Mar	No class	
3	9-Mar	No class	Quiz 1 due
4	16-Mar	Quiz 1 review	Quiz 2 due
5	23-Mar	Quiz 2 review & Elective topic workshops	Quiz 3 due

Week	Week Starting	Workshop content	Assessment
6	30-Apr	Quiz 3 review & Elective topic workshops	Quiz 4 due
7	6-Apr	Quiz 4 review	
	13 & 20 April	Mid-session break	
8	27 April	Project advising**	
9	4-May	No class	
10	11-May	No class	Project reports due
11	18-May	Exam preparation session	
12	25-May	No class	
13	1-June	Final exam (in-class)	

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.

Changes since First Published

Date	Description
05/ 03/ 2020	The dates of weeks 12 and 13 were incorrect in the unit schedule (missed one calendar week) which also caused the date of the final exam to be incorrectly indicated at one point in the guide.