PSYU2248

Design and Statistics II

Session 2, Special circumstances 2021

Archive (Pre-2022) - Department of Psychology

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Disclaimer

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Session 2 Learning and Teaching Update

The decision has been made to conduct study online for the remainder of Session 2 for all units WITHOUT mandatory on-campus learning activities. Exams for Session 2 will also be online where possible to do so.

This is due to the extension of the lockdown orders and to provide certainty around arrangements for the remainder of Session 2. We hope to return to campus beyond Session 2 as soon as it is safe and appropriate to do so.

Some classes/teaching activities cannot be moved online and must be taught on campus. You should already know if you are in one of these classes/teaching activities and your unit convenor will provide you with more information via iLearn. If you want to confirm, see the list of units with mandatory on-campus classes/teaching activities.

Visit the MQ COVID-19 information page for more detail.

General Information

Unit convenor and teaching staff
Unit Co-convener
Alissa Beath
alissa.beath@mq.edu.au
See iLearn for consultation hours

Unit Co-convener
Lili Yu
lili.yu@mq.edu.au
See iLearn for consultation hours

Credit points
10

Prerequisites
((PSYC104 or PSYU1104 or PSYX104 or PSYX1104) and (PSYC105 or PSYU1105 or PSYX105 or PSYX1105)) or ((PSYU1101 or PSYX1101) and (PSYU1102 or PSYX1102) and (STAT1103 or STAX1103))

Corequisites

Co-badged status

Unit description
This is an intermediate statistics unit, which covers both the design and statistical components of experiments common to psychological research. The importance of interpretation based on both the design and statistics components is emphasised, together with concepts of power and sample size requirements for efficient research. Statistical methods covered include: descriptive statistics; one-way and two-way analysis of variance; correlation; and regression and non parametric equivalents of ANOVA. The unit includes instruction on the presentation of statistical results in report formal. Practical classes are based on the use of the Stata statistical software.

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: Develop and demonstrate an appreciation of the way statistical techniques are used to support theory in psychology.

ULO2: Perform statistical analyses of experimental and non-experimental designs in psychology.

ULO3: Critically evaluate designs and analyses in experimental and non-experimental psychology.

General Assessment Information

You will be using the software package **Stata** throughout the unit including for all of the assessments and practical classes. Details on how to access Stata for free can be found on: https://students.mq.edu.au/support/technology/software/stata

In PSYU2248, while you are encouraged to form study groups to revise course material and practice using Stata, any work you submit for assessment **must be your own**, including calculations and written expression.

ASSIGNMENT

Details of the assignment will be made available approximately 4 weeks prior to the due date.

Assignment Submission: Assignment submission will be online through the iLearn page. Read the submission statement carefully before accepting it as there are substantial penalties for making a false declaration.

- The assignment must be submitted online via iLearn/Turnitin. You should upload this as a single file.
- It is your responsibility to ensure that the submitted file preserves the correct formatting of the document, including the placement of any graphs or tables in the document. It is often a good practice to convert the word document to a single PDF, confirm correct formatting, and then submit the PDF file to the iLearn/Turnitin.
- If there are technical obstructions to your submission online, please email us to let us know.

You may submit as often as required prior to the due date/time. Please note that each submission will completely replace any previous submissions. It is in your interests to make frequent submissions of your partially completed work as insurance against technical or other problems near the submission deadline.

Word Count Penalty: 5% of the possible mark will be deducted per 100 words over the word limit for the assessment task. An additional 99 words beyond the limit can be written without penalty.

Late Submission of Work: Late submissions, without an approved extension, will receive a 5% per day penalty including weekends and public holidays. If you submit the assessment task 10 days or more beyond the due date, you will be awarded a maximum of 50% of the overall

assessment marks. No further submissions will be accepted after the marked assignments are returned and feedback is released to students.

Extension: All extensions need to be formally requested via ask.mq.edu.au in line with the special consideration policy. All requests for extensions must be made prior to the due date for the assignment.

Mark: It is Psychology policy that letter grades, not numeric marks, are released for written assessment tasks. Any requests for remark need to follow the Psychology process and must be applied within 2 weeks of the assessment task being returned. Information will be provided on iLearn.

EXAMS

Mid-session Exam: The mid-session exam will be conducted online at a set time. The content covers all material from weeks 1-7 (including lecture content, practical content, and required readings).

Final Examination and Its Policy: The final exam will include all material covered in the unit (including lecture content, practical content, and required readings).

The final exam for this unit is currently scheduled to occur on Macquarie University campus. Students are expected to make themselves available for the exam, at the date and time set by the University, in line with the Assessment Policy and Procedure.

Sitting the final exam is compulsory in order to be eligible to pass the unit. Any student who does not attempt the final exam will be granted a Fail Absent grade.

Supplementary assessment tasks will only be provided following an approved Special Consideration application, and only when appropriate. Supplementary assessment tasks, including supplementary exams, can be in a different format to the original assessment task.

Assessment Tasks

Name	Weighting	Hurdle	Due
Mid-session exam	20%	No	Friday 17 September
Assignment	30%	No	Week 10
Final examination	50%	No	University exam period

Mid-session exam

Assessment Type [1]: Examination
Indicative Time on Task [2]: 22 hours
Due: **Friday 17 September**
Weighting: **20%**

Online mid-session examination.

On successful completion you will be able to:

- Develop and demonstrate an appreciation of the way statistical techniques are used to support theory in psychology.
- Perform statistical analyses of experimental and non-experimental designs in psychology.
- Critically evaluate designs and analyses in experimental and non-experimental psychology.

Assignment

Assessment Type [1]: Quantitative analysis task
Indicative Time on Task [2]: 25 hours
Due: **Week 10**
Weighting: **30%**

Students submit an assignment involving use of STATA statistical software, data analysis, interpretation of results, and communication of findings.

On successful completion you will be able to:

- Develop and demonstrate an appreciation of the way statistical techniques are used to support theory in psychology.
- Perform statistical analyses of experimental and non-experimental designs in psychology.
- Critically evaluate designs and analyses in experimental and non-experimental psychology.

Final examination

Assessment Type [1]: Examination
Indicative Time on Task [2]: 25 hours
Due: **University exam period**
Weighting: **50%**

Final examination held within the University's formal exam period, in accordance with relevant requirements.

On successful completion you will be able to:

- Develop and demonstrate an appreciation of the way statistical techniques are used to support theory in psychology.
- Perform statistical analyses of experimental and non-experimental designs in psychology.
- Critically evaluate designs and analyses in experimental and non-experimental psychology.

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[1] 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.

[2] 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

Delivery

Lectures will be delivered online via the iLearn site.

Practicals do not begin until week 2.

Practical classes are held weekly, with both on-campus and online class options. At the time of publishing this unit guide, most practical classes are scheduled to be held on campus. Class availability can be seen via eStudent class enrolment: the location of the class indicates if it is an online class or an on-campus class. However, in line with Public Health guidelines, this approach will be revised if and when necessary due to the COVID pandemic, in alignment with University policy. Changes or updates will be communicated via iLearn and/or emails sent to student email accounts. Students should stay up to date with the latest University advice at the following website: https://www.mq.edu.au/about/coronavirus-faqs/information-for-students

Resources

Please see iLearn before purchasing these texts:

Weinberg, S. L. & Abramowitz, S. K. (2020). *Statistics using Stata: An Integrative Approach* (2nd ed.). New York: Cambridge University Press.

Howell, D. C. (2016). *Fundamental statistics for the behavioral sciences*. Cengage learning.

Unit Schedule

Proposed lecture schedule (Note, lecture content and schedule are subject to change.)

Weeks	Lecture Content
1	Introduction to the unit Revision: Psychological Design & Methods
2	Revision: Correlation
3	Simple linear regression
4	Multiple linear regression
5	Revision: t-test One-Way Analysis of Variance (ANOVA) I
6	One-Way Analysis of Variance (ANOVA) II
7	Mid-session review
8	Factorial ANOVA I
9	Factorial ANOVA II
10	Factorial ANOVA III
11	Non-parametric tests
12	Loose ends
13	Final review

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central (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

- Grade Appeal Policy
- Complaint Management 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). 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) 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 or if you are a Global MBA student contact globalmba.support@mq.edu.au

Grading

Macquarie University, and Psychology undergraduate courses, follow standards-based assessment of student performance. All individual assessment tasks are subject to moderation, consistent with the Assessment Policy and Procedure. A student's final mark for this unit, and associated grade, must reflect their attainment of the unit learning outcomes, and isn't necessarily a simple summation of their individual assessment items.

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.