STAT1250

Business Statistics

Session 3, Special circumstances 2021

Archive (Pre-2022) - Department of Mathematics and Statistics

Contents

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
Convenor & Lecturer
Yi Jiang
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See iLearn

Convenor & Lecturer
Shobana Maheswaran
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See iLearn

Credit points
10

Prerequisites

Corequisites

Co-badged status

Unit description
Data is the foundation of sound business decisions. In this unit you will learn the fundamentals of analysing, solving and communicating business problems using quantitative information. The unit will cover the statistical concepts that provide a foundation for the study of and professional practice in business and economics. The focus will be on tools and approaches that are used every day in business. Problems and examples will be drawn from current real-world experience.

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: organise and summarise data graphically and numerically

ULO2: use appropriate techniques to analyse data

ULO3: use Excel to manipulate and analyse data

ULO4: draw conclusions from the results of data analysis

ULO5: apply statistical techniques to problems arising from diverse fields of research

including examples on sustainability

ULO6: demonstrate foundational learning skills including active engagement in your learning process

General Assessment Information

You need to have the latest version of **Excel with the Data Analysis add-on enabled** for the assessment tasks (see iLearn for information on how to access Excel for free from the university).

Hurdle Quizzes: If you fail any of the Hurdle Quizzes your highest possible mark for this unit will be 49 with a grade of Fail Hurdle (FH). **You need to pass all five Hurdle Quizzes to be able to pass this unit.**

Class Tests and Final Exam: You require Excel with the Data Analysis add-on to enable completion of these assessments. You will not be able to answer questions for these assessment tasks without it.

See the schedule in iLearn for detailed of assessment dates and additional information.

Assessment Tasks

Name	Weighting	Hurdle	Due
Practical Participation	0%	Yes	Daily from Day 2 to 13
SGTA Participation	0%	Yes	Daily from Day 2 to 13
Hurdle Quizzes	10%	Yes	Day 3, 4, 6, 10, 12
Class Test 1 (online)	15%	No	Day 7
Class Test 2 (online)	25%	No	Day 11
Final Exam (Online)	50%	No	University Examination Period

Practical Participation

Assessment Type [1]: Participatory task
Indicative Time on Task [2]: 0 hours
Due: **Daily from Day 2 to 13**
Weighting: **0%**
This is a hurdle assessment task (see assessment policy for more information on hurdle assessment tasks)

Students must attend and participate in at least 10 of the weekly practical classes to pass this unit. This is a hurdle requirement. They must attend the class that they are registered into.

On successful completion you will be able to:

- organise and summarise data graphically and numerically
- use appropriate techniques to analyse data
- use Excel to manipulate and analyse data
- apply statistical techniques to problems arising from diverse fields of research including examples on sustainability

SGTA Participation

Assessment Type [1]: Participatory task
Indicative Time on Task [2]: 0 hours
Due: **Daily from Day 2 to 13**
Weighting: **0%**
This is a hurdle assessment task (see assessment policy for more information on hurdle assessment tasks)

Students must attend and participate in at least 10 of the weekly SGTA classes to pass this unit. This is a hurdle requirement. They must attend the class that they are registered into.

On successful completion you will be able to:

- organise and summarise data graphically and numerically
- use appropriate techniques to analyse data
- draw conclusions from the results of data analysis
- apply statistical techniques to problems arising from diverse fields of research including examples on sustainability

Hurdle Quizzes

Assessment Type [1]: Quiz/Test
Indicative Time on Task [2]: 10 hours
Due: **Day 3, 4, 6, 10, 12**
Weighting: **10%**
This is a hurdle assessment task (see assessment policy for more information on hurdle assessment tasks)

The Hurdle Quizzes are online quizzes that will be made available on iLearn.

On successful completion you will be able to:

- use appropriate techniques to analyse data
- use Excel to manipulate and analyse data
- draw conclusions from the results of data analysis
- apply statistical techniques to problems arising from diverse fields of research including examples on sustainability
- demonstrate foundational learning skills including active engagement in your learning process

Class Test 1 (online)

Assessment Type [1]: Quiz/Test
Indicative Time on Task [2]: 3 hours
Due: **Day 7**
Weighting: **15%**

Class Test 1 will be online and available on iLearn. A supplementary class test will be given for students with an approved Special Consideration application.

On successful completion you will be able to:

- organise and summarise data graphically and numerically
- use appropriate techniques to analyse data
- use Excel to manipulate and analyse data
- draw conclusions from the results of data analysis

Class Test 2 (online)

Assessment Type [1]: Quiz/Test
Indicative Time on Task [2]: 3 hours
Due: **Day 11**
Weighting: **25%**

Class Test 2 will be online and available on iLearn. A supplementary class test will be given for students with an approved Special Consideration application.

On successful completion you will be able to:

- organise and summarise data graphically and numerically
- use appropriate techniques to analyse data
- use Excel to manipulate and analyse data
- draw conclusions from the results of data analysis

Final Exam (Online)

Assessment Type [1]: Examination
Indicative Time on Task [2]: 21 hours
Due: **University Examination Period**
Weighting: **50%**

Formal examination testing the learning outcomes of the unit. Students are advised that it is Macquarie University policy not to set early examinations for individuals or groups of students. All students are expected to ensure that they are available until the end of the teaching semester, i.e. the final day of the official examination period.

On successful completion you will be able to:

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- use Excel to manipulate and analyse data
- draw conclusions from the results of data analysis
- apply statistical techniques to problems arising from diverse fields of research including examples on sustainability

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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

Semester 3 is a compressed time unit, meaning that all of the material given in a regular semester is presented in 5 weeks. This means that each week (except for the final week) there are three days of classes with each day comprising a lecture, practical and an SGTA. There are assessments due approximately every other day. As such there is a large weekly commitment

required to enable successful completion of this offering. The class schedule can be seen on iLearn.

You are expected to complete your learning by studying the Lecture slides and watching Lecture videos, by solving the problems presented in SGTA materials (solutions are presented in SGTA videos) and by solving the problems presented in Practical materials (solutions are presented in Practical videos). You should plan up to 30 hours of study time each week in Semester 3.

Lecture notes, **SGTA** worksheets and **Practical** worksheets will be available to download within iLearn. Lecture, SGTA and Practical videos will provide answers to unsolved problems in the Lecture slides, SGTA and Practical worksheets.

Technology Used and Required: All course material is delivered through iLearn. The link may be found at http://ilearn.mq.edu.au

Unit Schedule

Unit Schedule:

See iLearn for details of assessment delivery and timings.

Day	Lecture Topic	Assessments
1	Introduction to statistics	
2	Summarising and displaying data	
3	Summarising and displaying data (continued)	Hurdle Quiz 1
4	Introduction to distributions: the normal distribution	Hurdle Quiz 2
5	Sampling distributions and confidence intervals for proportions	
6	Sampling distributions and confidence intervals for means	Hurdle Quiz 3
7	One sample hypothesis tests for a population mean	Class Test 1
8	Hypothesis tests for comparing population means	
9	Simple linear regression (Part 1)	
10	Simple linear regression (Part 2)	Hurdle Quiz 4
11	Hypothesis tests for population proportions: z-test of a proportion and chi-squared goodness-of fit test	Class Test 2
12	Chi-squared test of independence	Hurdle Quiz 5
13	Revision	

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

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.