

# **STAT1250**

# **Business Statistics**

Session 1, Special circumstances 2021

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

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#### Disclaimer

Macquarie University has taken all reasonable measures to ensure the information in this publication is accurate and up-to-date. However, the information may change or become out-dated as a result of change in University policies, procedures or rules. The University reserves the right to make changes to any information in this publication without notice. Users of this publication are advised to check the website version of this publication [or the relevant faculty or department] before acting on any information in this publication.

#### Notice

As part of Phase 3 of our return to campus plan, most units will now run tutorials, seminars and other small group activities on campus, and most will keep an online version available to those students unable to return or those who choose to continue their studies online.

To check the availability of face-to-face activities for your unit, please go to <u>timetable viewer</u>. To check detailed information on unit assessments visit your unit's iLearn space or consult your unit convenor.

### **General Information**

Unit convenor and teaching staff

Unit Convenor/Lecturer

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Contact via E-mail

See iLearn for consultation hours

Unit Convenor/Lecturer

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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**

#### **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.

LATE SUBMISSION OF WORK: All assessment tasks must be submitted by the official due date and time. In the case of a late submission for a non-timed assessment (e.g. an assignment), if special consideration has NOT been granted, 20% of the earned mark will be deducted for each 24-hour period (or part thereof) that the submission is late for the first 2 days (including weekends and/or public holidays). For example, if an assignment is submitted 25 hours late, its mark will attract a penalty equal to 40% of the earned mark. After 2 days (including weekends and public holidays) a mark of 0% will be awarded. Timed assessment tasks (e.g. tests, examinations) do not fall under these rules.

**FINAL EXAM POLICY**: 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, that is, the final day of the official examination period. The only excuse for not sitting an examination at the designated time is because of documented illness or unavoidable disruption. In these special circumstances, you may apply for special consideration via <a href="mailto:ask.mq.edu.au">ask.mq.edu.au</a>. If you receive special consideration for the final exam, a supplementary exam will be scheduled in the interval between the regular exam period and the start of the next session. By making a special consideration application for the final exam you are declaring yourself available for a resit during this supplementary examination period and will not be eligible for a second special consideration approval based on pre-existing commitments. Please ensure you are familiar with the policy prior to submitting an application.

#### **Assessment Tasks**

Name	Weighting	Hurdle	Due
Hurdle Quizzes	10%	Yes	See iLearn
Practical Participation	0%	Yes	See iLearn
SGTA Participation	0%	Yes	See iLearn
Class Test 1	15%	No	See iLearn
Class Test 2	25%	No	See iLearn
Final Exam	50%	No	Formal University Examination Period

#### **Hurdle Quizzes**

Assessment Type 1: Quiz/Test

Indicative Time on Task 2: 10 hours

Due: **See iLearn** Weighting: **10%** 

This is a hurdle assessment task (see <u>assessment policy</u> 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

# **Practical Participation**

Assessment Type 1: Participatory task Indicative Time on Task 2: 0 hours

Due: **See iLearn** Weighting: **0**%

This is a hurdle assessment task (see <u>assessment policy</u> 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: **See iLearn** Weighting: **0%** 

This is a hurdle assessment task (see <u>assessment policy</u> for more information on hurdle assessment tasks)

Students must attend and participate in at least 80% of the 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

### Class Test 1

Assessment Type 1: Quiz/Test Indicative Time on Task 2: 3 hours

Due: **See iLearn** Weighting: **15%** 

Class Test 1 will be held in the first half of the session.

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

Assessment Type 1: Quiz/Test Indicative Time on Task 2: 3 hours

Due: **See iLearn** Weighting: **25%** 

Class Test 2 will be held in the second half of the session.

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

Assessment Type 1: Examination Indicative Time on Task 2: 21 hours

Due: Formal University Examination Period

Weighting: 50%

Formal invigilated 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:

- 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
- apply statistical techniques to problems arising from diverse fields of research including examples on sustainability

- <sup>1</sup> 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.

# **Delivery and Resources**

You are expected to study each week at least 10 hours to achieve best learning outcomes. **Lecture** notes, **SGTA** worksheets and **Practical** worksheets will be available to download within iLearn. Recommended text books will be listed in iLearn, you only need one of the recommended text books.

**Technology Used and Required:** All course material is delivered through iLearn (which is a version of Moodle). The link may be found at <a href="http://ilearn.mq.edu.au">http://ilearn.mq.edu.au</a>

## **Unit Schedule**

Week	Lecture Topic		
1	Introduction to statistics		
2	Summarising and displaying data		
3	Summarising and displaying data (continued)		
4	Introduction to distributions: the normal distribution		
5	Sampling distributions and confidence intervals for proportions		
6	Sampling distributions and confidence intervals for means		
Semester Break (not holiday)			
7	One sample hypothesis tests for a population mean		
8	Hypothesis tests for comparing population means		
9	Simple linear regression (Part 1)		
10	Simple linear regression (Part 2)		
11	Hypothesis tests for population proportions: z-test of a proportion and chi-squared goodness-of fit test		
12	Chi-squared test of independence		
13	Revision		

<sup>&</sup>lt;sup>2</sup> Indicative time-on-task is an estimate of the time required for completion of the assessment task and is subject to individual variation

### **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 <u>Student Policies</u> (<u>https://students.mq.edu.au/support/study/policies</u>). 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.e du.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 <u>eStudent</u>, (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 <u>eStudent</u>. For more information visit <u>ask.mq.edu.au</u> 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 <a href="http://students.mq.edu.au/support/">http://students.mq.edu.au/support/</a>

## **Learning Skills**

Learning Skills (<u>mq.edu.au/learningskills</u>) 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 <u>Disability Service</u> 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 <a href="http://www.mq.edu.au/about\_us/">http://www.mq.edu.au/about\_us/</a> offices\_and\_units/information\_technology/help/.

When using the University's IT, you must adhere to the <u>Acceptable Use of IT Resources Policy</u>. The policy applies to all who connect to the MQ network including students.

# **Changes from Previous Offering**

There will be online and/or on campus SGTA and Practical Classes. More up-to-date information is available within iLearn.

# **Changes since First Published**

Date	Description
12/02/2021	Updated General Assessment information