STAT1250

Business Statistics

Session 2, In person-scheduled-weekday, North Ryde 2022

School of Mathematical and Physical Sciences

Contents

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General Information

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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

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).

Participation Hurdle: You need to pass participation hurdle (see SGTA and Practicals) to be able to pass this unit.

Hurdle Quizzes: There are 5 (five) 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 SUBMISSION DEADLINES AND LATE SUBMISSIONS: Hurdle quizzes and Class tests must be undertaken at the time indicated in the unit guide (See iLearn for individual due dates).

Late Assessment Submission Penalty From 1 July 2022, Students enrolled in Session-based units with written assessments will have the following university standard late penalty applied. Please see https://students.mq.edu.au/study/assessment-exams/assessments for more information. For any late submission of time-sensitive tasks, such as scheduled tests/exams, performance assessments/presentations, and/or scheduled practical assessments/labs, students need to submit an application for Special Consideration. Assessments where Late Submissions will be accepted In this unit, late submissions will accepted as follows: ·

Hurdle Quizes – YES, see iLearn for details ·

Class Tests - NO, unless Special Consideration is Granted

Assessment Tasks

Name	Weighting	Hurdle	Due
Practical Participation	0%	Yes	Weekly - from 2 to 13
SGTA Participation	0%	Yes	Weekly - from 2 to 13
Hurdle Quizzes	10%	Yes	5 of them, See iLearn for individual due dates
Class Test 1	15%	No	Week 7
Class Test 2	25%	No	Week 11

Name	Weighting	Hurdle	Due
Final Exam	50%	No	During University Examination Period

Practical Participation

Assessment Type [1]: Participatory task
Indicative Time on Task [2]: 0 hours
Due: **Weekly - from 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: **Weekly - from 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: **5 of them, See iLearn for individual due dates**
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

Assessment Type [1]: Quiz/Test
Indicative Time on Task [2]: 3 hours
Due: **Week 7**
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: **Week 11**
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: **During 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

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

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 http://ilearn.mq.edu.au

Unit Schedule

Week	Lecture Topic	Assessment Due
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	
5	Sampling distributions and confidence intervals for proportions	Hurdle Quiz 2
6	Sampling distributions and confidence intervals for means	
7	One sample hypothesis tests for a population mean	Hurdle Quiz 3 Class Test 1
	Semester Break (not a holiday)	
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	Hurdle Quiz 4 Class Test 2
12	Chi-squared test of independence	
13	Revision	Hurdle Quiz 5

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
- Assessment Procedure
- Complaints Resolution 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

Academic Integrity

At Macquarie, we believe academic integrity – honesty, respect, trust, responsibility, fairness and courage – is at the core of learning, teaching and research. We recognise that meeting the expectations required to complete your assessments can be challenging. So, we offer you a range of resources and services to help you reach your potential, including free online writing and maths support, academic skills development and wellbeing consultations.

Student Support

Macquarie University provides a range of support services for students. For details, visit http://students.mq.edu.au/support/

The Writing Centre

The Writing Centre provides resources to develop your English language proficiency, academic writing, and communication skills.

- Workshops
- Chat with a WriteWISE peer writing leader
- Access StudyWISE
- Upload an assignment to Studiosity
- Complete the 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

Macquarie University offers a range of Student Support Services including:

- IT Support
- Accessibility and disability support with study
- Mental health support
- Safety support to respond to bullying, harassment, sexual harassment and sexual assault
- Social support including information about finances, tenancy and legal issues

Student Enquiries

Got a question? Ask us via AskMQ, or contact Service Connect.

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 from Previous Offering

Schedule of the unit revised.