STAT1250

Business Statistics and Insights

Session 1, In person-scheduled-weekday, North Ryde 2025

School of Mathematical and Physical Sciences

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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. Problems and examples will be drawn from current real-world experience. The unit will cover statistical and analytics tools that transform data to provide insights for decision-making and professional practice in business and commerce. The focus will be on tools and approaches that are used in contemporary business to enhance your data literacy and technical skills.

Learning in this unit enhances student understanding of global challenges identified by the United Nations Sustainable Development Goals (UNSDGs) Industry, Innovation and Infrastructure

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: Use appropriate Excel tools to prepare data for analysis.

ULO2: Organise and summarise data graphically and numerically.

ULO3: Apply statistical techniques and data analytics to provide solutions to business problems.

ULO4: Generate actionable commercial insights from the results of data analysis for business to make informed decisions.

General Assessment Information

Requirements to Pass this Unit:

To pass this unit, you must:

1. Achieve a total mark equal to or greater than 50%

There are no hurdle assessments for this unit.

We strongly encourage all students to actively participate in all learning activities. Regular engagement is crucial for your success in this unit, as these activities provide opportunities to deepen your understanding of the material, collaborate with peers, and receive valuable feedback from instructors, to assist in completing the unit assessments. Your active participation not only enhances your own learning experience but also contributes to a vibrant and dynamic learning environment for everyone.

Late Assessment Submission Penalty:

Unless a Special Consideration request has been submitted and approved, a 5% penalty (of the total possible mark) will be applied each day a written assessment is not submitted, up until the 7th day (including weekends). After the 7th day, a grade of 0 will be awarded even if the assessment is submitted. Submission time for all written assessments is set at 11:55 pm. A 1-hour grace period is provided to students who experience a technical concern. 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.

1. Report – YES, Standard Late Penalty applies
2. Quantitative analysis task – NO, unless Special Consideration is granted
3. Final Exam – NO, unless Special Consideration is granted

Special Considerations:

The Special Consideration Policy aims to support students who have been impacted by short-term circumstances or events that are serious, unavoidable and significantly disruptive, and which may affect their performance in assessment. If you experience circumstances or events that affect your ability to complete the assessments in this unit on time, please inform the convenor and submit a Special Consideration request through https://connect.mq.edu.au.

Assessment Tasks

Name	Weighting	Hurdle	Due	Groupwork/Individual	Short Extension	AI Approach
Report	35%	No	Week 7		No	
Quantitative analysis task	25%	No	Week 11		No	
Final Exam	40%	No	University Examination Period		No	

Report

Assessment Type [1]: Report
Indicative Time on Task [2]: 25 hours
Due: **Week 7**
Weighting: **35%**
Groupwork/Individual:
Short extension [3]: No
AI Approach:

An individual report where students use Excel to generate business insights, summarise and

report the findings.

On successful completion you will be able to:

- Use appropriate Excel tools to prepare data for analysis.
- Organise and summarise data graphically and numerically.
- Apply statistical techniques and data analytics to provide solutions to business problems.
- Generate actionable commercial insights from the results of data analysis for business to make informed decisions.

Quantitative analysis task

Assessment Type [1]: Quantitative analysis task
Indicative Time on Task [2]: 15 hours
Due: **Week 11**
Weighting: **25%**
Groupwork/Individual:
Short extension [3]: No
AI Approach:

A quantitative analysis task will be held during class time during the session.

On successful completion you will be able to:

- Use appropriate Excel tools to prepare data for analysis.
- Organise and summarise data graphically and numerically.
- Apply statistical techniques and data analytics to provide solutions to business problems.
- Generate actionable commercial insights from the results of data analysis for business to make informed decisions.

Final Exam

Assessment Type [1]: Examination
Indicative Time on Task [2]: 30 hours
Due: **University Examination Period**
Weighting: **40%**
Groupwork/Individual:
Short extension [3]: No

AI Approach:

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:

- Use appropriate Excel tools to prepare data for analysis.
- Organise and summarise data graphically and numerically.
- Apply statistical techniques and data analytics to provide solutions to business problems.
- Generate actionable commercial insights from the results of data analysis for business to make informed decisions.

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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
- Academic Success 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.

[3] An automatic short extension is available for some assessments. Apply through the Service Connect Portal.

Delivery and Resources

Classes

Students should enrol in and attend the following classes each week:

- 1 x 90-minute lecture beginning in **Week 1**
- 1 x 90-minute SGTA beginning in **Week 2**

The timetable for classes can be found on the University website at: https://publish.mq.edu.au

Enrolment can be managed using eStudent at: https://students.mq.edu.au/support/technology/systems/estudent

Method of Communication

We will communicate with you via your university email or through announcements on iLearn. Instructions for seeking assistance can be located on the STAT1250 iLearn page in a dedicated section.

Recommended Textbooks

The following is the set text for this unit and will be referred to in weekly readings:

- *Business Analytics and Statistics*, (Black et al., n.d.). (required)
- *Basic Business Statistics*, (Berenson et al., n.d.). (optional)

Technology Used and Required

All unit material is delivered through iLearn. The link may be found at http://ilearn.mq.edu.au

Unit Schedule

Week	Lecture Topic
1	Introduction to data, analytics, and Excel
2	Summarising data - Numerical and Graphical Summaries, including Charts in Excel
3	Conditional Formatting, Custom Formats and Sparklines for Visualisations
4	Named Ranges, Tables, and Slicers
5	Hypothesis Testing
6	Data validation, Cleaning, and Preparation
7	PivotTables and PivotCharts
8	Simple Linear Regression I
9	Simple Linear Regression II
10	Multiple Linear Regression
11	Specialised Charts and Dashboards
12	Conditional Logic and Lookup Functions
13	Revision week

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 connect.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/

Academic Success

Academic Success 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 Advocacy provides independent advice on MQ policies, procedures, and processes

Student Enquiries

Got a question? Ask us via the Service Connect Portal, 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

To enable students more time to focus on learning, understanding and reflecting on the content of our unit we have revised the assessment structure as follows. There are now only three assessments: a report, a quantitative analysis task and final exam. Although no marks are associated with attendance, all activities provide you with key content designed to help you understand content and complete the assessments.

Changes since First Published

Date	Description
16/02/2025	Assessment 1: Report is now due in Week 7 instead of Week 8 so feedback can be provided before the Last Withdrawal Date.

Unit information based on version 2025.04 of the Handbook