



STAT1250

Business Statistics and Insights

Session 1, In person-scheduled-weekday, North Ryde 2024

School of Mathematical and Physical Sciences

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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.

General Information

Unit convenor and teaching staff

Unit Convenor

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Administration (all administrative and operational queries)

STAT1250 Admin

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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.

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. Attempt all assessment tasks
2. Achieve a total mark equal to or greater than 50%

Active Engagement In-Class Assessment (expectations, logistics, and special consideration):

Weekly workshop participation is expected throughout the session. Students are expected to attend all workshops and participate in activities. Student performance in these activities will be assessed during class. The best 8 out of 12 workshop marks will count towards your unit grade. Despite this '8 out of 12' requirement, participation in all workshops will enhance your chances of success in the unit, as workshops are where we engage with the unit material via active learning, as well as preparation and revision for other unit assessments. There is a positive correlation between workshop participation and unit success.

You do not need to submit a Special Consideration case unless you miss more than 4 workshops. If you do submit a Special Consideration case for the Active Engagement Assessment - in your case-ticket, you must specify how many workshops you have missed in

total for this unit. Students who specify that they have only missed 4 or less workshops in total will have their cases automatically declined - as you still have the opportunity to have 8 submissions.

If you have a serious commitment that will arise during the session that could result in you missing one workshop as a one-off event, please email stat1250.admin@mq.edu.au to find an alternative arrangement - you can do this without submitting a Special Consideration case.

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. Pre-workshop Activity and In-workshop Activity– NO, unless Special Consideration is granted
2. Report – YES, Standard Late Penalty applies
3. Test – NO, unless Special Consideration is granted
4. Final Exam – NO, unless Special Consideration is granted

Special Considerations: If you experience circumstances or events that affect your ability to complete the report, test or final exam in this unit on time, please submit a Special Consideration request through ask.mq.edu.au.

Assessment Tasks

| Name | Weighting | Hurdle | Due |
|---|-----------|--------|--|
| <u>Pre-workshop Activity and In-workshop Activity</u> | 20% | No | Weekly from Week 2 |
| <u>Report</u> | 20% | No | Week 7 |
| <u>Test</u> | 20% | No | Week 11 |
| <u>Final Exam</u> | 40% | No | During the university examination period |

Pre-workshop Activity and In-workshop Activity

Assessment Type ¹: Practice-based task

Indicative Time on Task ²: 6 hours

Due: **Weekly from Week 2**

Weighting: **20%**

Development of knowledge and skills requires continual practice. Before and during the workshop, you will practice a range of Excel and statistical techniques. You must be able to demonstrate your progress in developing knowledge and skills in these activities. Your final grade will be calculated based on your active engagement in the 12 workshops, with the best 8 scores being used for the calculation.

On successful completion you will be able to:

- Use appropriate Excel tools to prepare data for analysis.
- Organise and summarise data graphically and numerically.
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Report

Assessment Type ¹: Report

Indicative Time on Task ²: 10 hours

Due: **Week 7**

Weighting: **20%**

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

On successful completion you will be able to:

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Test

Assessment Type ¹: Quiz/Test

Indicative Time on Task ²: 3 hours

Due: **Week 11**

Weighting: **20%**

A test will be held during class time during the session.

On successful completion you will be able to:

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Final Exam

Assessment Type ¹: Examination

Indicative Time on Task ²: 21 hours

Due: **During the university examination period**

Weighting: **40%**

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.
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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

Classes

Students should enrol in the following classes each week:

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

The timetable for classes can be found on the University website at: <http://www.timetables.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.

COVID Information

For the latest information on the University's response to COVID-19, please refer to the Coronavirus infection page on the Macquarie website: <https://www.mq.edu.au/about/coronavirus-faqs>. Remember to check this page regularly in case the information and requirements change during the semester. If there are any changes to this unit in relation to COVID, these will be communicated via iLearn.

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 | PivotTables and PivotCharts |
| 6 | Data validation, Cleaning, and Preparation |
| 7 | Conditional Logic and Lookup Functions |
| 8 | Simple Linear Regression I |
| 9 | Simple Linear Regression II |
| 10 | Multiple Linear Regression |
| 11 | Specialised Charts |
| 12 | Dashboards |
| 13 | Revision week |

Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central \(https://policies.mq.edu.au\)](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 \(https://students.mq.edu.au/support/study/policies\)](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 \(https://policies.mq.edu.au\)](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 Advocacy](#) provides independent advice on MQ policies, procedures, and processes

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

Macquarie Business School Bachelor degrees have undergone an extensive internal and external review during 2022 and 2023. For 2024, we have refreshed this unit in line with the recommendations of the review panels which included senior academics from other universities, Macquarie University alumni, and industry experts.

At the Faculty of Science and Engineering (FSE), we value student feedback to be able to improve the way we offer our units continually. As such, we encourage students to provide constructive feedback via student surveys, to the teaching staff directly, or via the FSE Student Experience & Feedback link on the iLearn page.

Unit information based on version 2024.02 of the [Handbook](#)