

# **BUSA2020**

# **Data Visualisation and Storytelling**

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

Department of Actuarial Studies and Business Analytics

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#### Disclaimer

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#### **General Information**

Unit convenor and teaching staff

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Credit points

10

Prerequisites

(BUSA1000 or COMP1000 or FOSE1030 or COMP1350) and (STAT1250 or STAT1170 or STAT1371)

Corequisites

Co-badged status

Unit description

Growing quantities of data collected by businesses, governments, the internet and social media provide opportunities for better management and a better society through evidence-based decision-making and the provision of new services. This unit builds on quantitative techniques and approaches to achieve these goals and infuses them with the art of storytelling, unlocking opportunities for informed decision-making and societal progress.

Through hands-on exploration, students learn to harness software tools not just to analyse but to craft compelling narratives from quantitative data. This unit serves as a stepping stone toward developing the technical capabilities and philosophical depth necessary to navigate the world of business analytics, where data-driven insights drive innovation and change.

### Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at <a href="https://www.mq.edu.au/study/calendar-of-dates">https://www.mq.edu.au/study/calendar-of-dates</a>

# **Learning Outcomes**

On successful completion of this unit, you will be able to:

**ULO1:** Explore different methods of data analysis, presentation, and storytelling for social networks and complex datasets .

**ULO2:** Create interactive data visualisations using appropriate software to aid decision-makers in understanding interrelationships and trends.

**ULO3:** Apply intermediate skills in spreadsheets and data visualisation software to

demonstrate trends and relationships among factors in industry and society.

**ULO4:** Analyse government, industry and social media data to identify relationships and trends

**ULO5:** Evaluate conclusions drawn from different data and analytic tools and cultivate insights and narrations to enhance business decisions.

#### **Assessment Tasks**

Name	Weighting	Hurdle	Due
Spreadsheet Functions	25%	No	23/03/2025
Data Visualisation	25%	No	04/05/2025
Project	40%	No	18/05/2025
Participation in the class	10%	No	Weekly

#### **Spreadsheet Functions**

Assessment Type 1: Quantitative analysis task

Indicative Time on Task 2: 10 hours

Due: **23/03/2025** Weighting: **25%** 

Students will be asked to demonstrate skills in data manipulation.

On successful completion you will be able to:

- Explore different methods of data analysis, presentation, and storytelling for social networks and complex datasets.
- Apply intermediate skills in spreadsheets and data visualisation software to demonstrate trends and relationships among factors in industry and society.

#### **Data Visualisation**

Assessment Type 1: Practice-based task Indicative Time on Task 2: 20 hours

Due: **04/05/2025** Weighting: **25%** 

Students will use visualisation software to extract spreadsheet data to demonstrate

interrelationships in different ways appropriate to the task.

On successful completion you will be able to:

- Apply intermediate skills in spreadsheets and data visualisation software to demonstrate trends and relationships among factors in industry and society.
- Evaluate conclusions drawn from different data and analytic tools and cultivate insights and narrations to enhance business decisions.

# **Project**

Assessment Type 1: Practice-based task Indicative Time on Task 2: 30 hours

Due: **18/05/2025** Weighting: **40%** 

The assessment consists of a project related to the topics of the class.

On successful completion you will be able to:

- Explore different methods of data analysis, presentation, and storytelling for social networks and complex datasets.
- Create interactive data visualisations using appropriate software to aid decision-makers in understanding interrelationships and trends.
- Apply intermediate skills in spreadsheets and data visualisation software to demonstrate trends and relationships among factors in industry and society.
- Analyse government, industry and social media data to identify relationships and trends.
- Evaluate conclusions drawn from different data and analytic tools and cultivate insights and narrations to enhance business decisions.

### Participation in the class

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

Due: **Weekly** Weighting: **10%** 

Active participation in classes

On successful completion you will be able to:

- Explore different methods of data analysis, presentation, and storytelling for social networks and complex datasets.
- Create interactive data visualisations using appropriate software to aid decision-makers in understanding interrelationships and trends.
- Apply intermediate skills in spreadsheets and data visualisation software to demonstrate trends and relationships among factors in industry and society.

- 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**

Please refer to iLearn

#### **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 <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.

<sup>&</sup>lt;sup>1</sup> If you need help with your assignment, please contact:

<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

#### **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>connect.mq.edu.au</u> or if you are a Global MBA student contact <u>globalmba.support@mq.edu.au</u>

#### **Academic Integrity**

At Macquarie, we believe <u>academic integrity</u> – 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 <u>online writing and maths support</u>, academic skills development and wellbeing consultations.

### 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>

#### 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
- <u>Safety support</u> 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 <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.

Unit information based on version 2025.04 of the Handbook