



# BUSA2020

## Fundamentals of Business Analytics

Session 2, Online-scheduled-weekday 2022

*Department of Actuarial Studies and Business Analytics*

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#### **Disclaimer**

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## General Information

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| Unit convenor and teaching staff<br>Unit Convenor<br>Shoujin Wang<br><a href="mailto:shoujin.wang@mq.edu.au">shoujin.wang@mq.edu.au</a>   |
| Credit points<br>10   |
| Prerequisites<br>(STAT150 or STAT1250 or STAT170 or STAT1170 or STAT171 or STAT1371) and<br>(COMP115 or COMP1000 or ISYS114 or COMP1350)  |
| Corequisites  |
| Co-badged status  |
| Unit description<br>Growing quantities of data collected by business, government, 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 introduces students to quantitative techniques and approaches to achieve these goals. Students will gain hands-on experience with software tools to analyse and present quantitative data. Students will be introduced to the discovery and analysis of social networks, social trends, and relationships amongst industry factors using spreadsheets and data visualisation software. The unit thus is an introduction to the technical and philosophical skills required, and the many applications of business analytics. |

## 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:** Explore different methods of data analysis and presentation for social networks, complex systems and relational links.

**ULO2:** Create interactive models 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.

## General Assessment Information

### Late Assessment Submission Penalty (written assessments)

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 11.55pm. A 1-hour grace period is provided to students who experience a technical concern.

For any late submissions 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](#).

## Assessment Tasks

| Name                                  | Weighting | Hurdle | Due                                 |
|---------------------------------------|-----------|--------|-------------------------------------|
| <a href="#">Spreadsheet Functions</a> | 15%       | No     | Week 4, see iLearn for more details |
| <a href="#">Data Visualisation</a>    | 25%       | No     | Week 8, see iLearn for more details |
| <a href="#">Final Examination</a>     | 60%       | No     | University Examination Period       |

## Spreadsheet Functions

Assessment Type <sup>1</sup>: Quantitative analysis task

Indicative Time on Task <sup>2</sup>: 10 hours

Due: **Week 4, see iLearn for more details**

Weighting: **15%**

Students will be asked to demonstrate skills in data manipulation.

On successful completion you will be able to:

- Explore different methods of data analysis and presentation for social networks, complex systems and relational links.

- 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: **Week 8, see iLearn for more details**

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.

## Final Examination

Assessment Type **1**: Examination

Indicative Time on Task **2**: 30 hours

Due: **University Examination Period**

Weighting: **60%**

The final exam to be held in the University exam period.

On successful completion you will be able to:

- Explore different methods of data analysis and presentation for social networks, complex systems and relational links.
- Create interactive models 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.

<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.

<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

## Delivery and Resources

### Textbook

Camm, Cochran, Fry, Ohlmann, Anderson & Sweeney, (2020) *Business Analytics, 4th*, Cengage

Camm et al also offers the text book online.

### Technology used and required

Students should have access to standard spreadsheet software. We will be using MSEXcel® and may reference similar software by other brands such as Minitab®. We will make extensive use of Data-Visualisation software, Tableau®. We have a teaching license for the session, and students will be given a key to download the full program for use in study at home.

### Inherent requirements

Students are expected to install MSEXcel® and Tableau® (either Windows or Apple OS) to their own laptops and/or computers. They will use the software in the online-lecture and tutorials.

### Recommended readings

Suggested online readings, and resources are presented in each week's exercises. Without a formal textbook students will need to routinely read the sources shared in the unit website, and contribute with others what they find.

### Unit Web Page

Course material is available on the learning management system (iLearn). The general online website is [iLearn](#)

## Unit Schedule

See iLearn for details

## 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](http://ask.mq.edu.au) or if you are a Global MBA student contact [globalmba.support@mq.edu.au](mailto: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/](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

08/07/2022

Assessments updated