



# MGMT321

## Business Analytics Project

S2 Day 2019

*Department of Actuarial Studies and Business Analytics*

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#### **Disclaimer**

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## General Information

Unit convenor and teaching staff

Unit convenor

Hume Winzar

[hume.winzar@mq.edu.au](mailto:hume.winzar@mq.edu.au)

Contact via 02 9850 6468

4 Eastern Road, Room 633 (Previously E4A-633)

Tuesday, 1:00pm to 2:00pm or by appointment

Administration

Angela Chow

[angela.chow@mq.edu.au](mailto:angela.chow@mq.edu.au)

Credit points

3

Prerequisites

(Admission to BBusAnalytics or BAppFinBBusAnalytics or BBusAnalyticsBSecStud or BCom-ProfAccgBBusAnalytics or BEcBBusAnalytics) and (39cp at 100 level or above) including (MGMT320 and ISYS224)

Corequisites

Co-badged status

Unit description

This unit provides a platform for students to exercise the knowledge and skills that they have gained in previous units in the Bachelor of Business Analytics and related programs. The major component of the unit is an organisation-based group project, where students will actively engage with an organisation including but not limited to: not-for-profit organisations, government agencies, companies, and industry partners. Group work engages students in the challenges of interpersonal communication, task allocation, coordination and control. Students will gain an insight into the analytical problems faced by organisations and be able to contextualise their graduate capabilities into the final business project. The unit will consider key issues, concepts and frameworks of analytics ethics, and social responsibility, and how these can be applied to policy and practice. The class is conducted through lectures, workshops and discussions where students will develop an analytical solution around the client partner's specified information-based problem. Throughout the unit, the emphasis is on the analysis process: identifying information needs, acquiring the necessary information, interpreting it and using it as the basis for strategic recommendations back to the client partner.

## 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:

Successfully work in teams to achieve group and organisational objectives.

Demonstrate knowledge of data analysis techniques and apply various quantitative data analysis techniques to resolve the information needs of an organisation.

Be able to conduct an organisational and industry analysis to assess business opportunities by analysing customers, competitors, collaborators, and other external forces in a collaborative setting.

Critically examining problem areas, developing feasible analytics investment decision options, developing key recommendations, and communicating this strategic thinking to others

Enhance awareness of analytics' contribution to society through discussion of ethical and professional conduct and issues in corporate social responsibility

## General Assessment Information

### Late submission

No extensions will be granted. There will be a deduction of 10% of the total available marks made from the total awarded mark for each 24 hour period or part thereof that the submission is late (for example, 25 hours late in submission – 20% penalty). This penalty does not apply for cases in which an application for special consideration is made and approved. No submission will be accepted after solutions have been posted.

It is the responsibility of students to view their marks for each within-session assessment on iLearn within 20 working days of posting. If there are any discrepancies, students must contact the unit convenor immediately. Failure to do so will mean that queries received after the release of final results regarding assessment marks (not including the final exam mark) will not be addressed.

## Assessment Tasks

Name	Weighting	Hurdle	Due
<a href="#">Report</a>	15%	No	Friday 23 August 2019, 11.55pm .

Name	Weighting	Hurdle	Due
<a href="#"><u>Individual Progress Report</u></a>	20%	No	Friday 13 September 2019, 11.55pm
<a href="#"><u>Reflective Journal</u></a>	20%	No	11:55pm Friday 16 August, and 11:55pm Friday 8 November
<a href="#"><u>Final Analytics Project Report</u></a>	45%	No	Weeks 11-13

## Report

Due: **Friday 23 August 2019, 11.55pm .**

Weighting: **15%**

Students will produce a brief report covering the following topics:

- Review of techniques learned in MGMT320,
- Preliminary analysis of client data.

This submission is due to be posted to iLearn by Friday 23 August 2019 at 11.55pm .

On successful completion you will be able to:

- Successfully work in teams to achieve group and organisational objectives.
- Demonstrate knowledge of data analysis techniques and apply various quantitative data analysis techniques to resolve the information needs of an organisation.
- Be able to conduct an organisational and industry analysis to assess business opportunities by analysing customers, competitors, collaborators, and other external forces in a collaborative setting.
- Critically examining problem areas, developing feasible analytics investment decision options, developing key recommendations, and communicating this strategic thinking to others

## Individual Progress Report

Due: **Friday 13 September 2019, 11.55pm**

Weighting: **20%**

Each member of the group will be allocated a phase of the Group Project and will provide a progress report on that particular phase.

The assignment acts as a progress report of the final project to demonstrate understanding of the relevant Phase of the Group Project and so that detailed feedback can be provided by tutors.

The individual progress report should be uploaded via iLearn by Friday 13 September 2019 at 11.55pm

For complete details of each phase, please see full description in 'Final Written Report' section that will be loaded on iLearn.

On successful completion you will be able to:

- Successfully work in teams to achieve group and organisational objectives.
- Enhance awareness of analytics' contribution to society through discussion of ethical and professional conduct and issues in corporate social responsibility

## Reflective Journal

**Due: 11:55pm Friday 16 August, and 11:55pm Friday 8 November**

Weighting: **20%**

As part of evaluating the participative process, an individual reflective journal should be submitted in two stages: (1) early in the semester, before our industry engagement exercise, and then (2) after the group presentation and final group report has been submitted. The Reflective Journal is based on an evaluation of the student's personal evaluation and perception of their attributes and capabilities. This perception should draw on prior experiences, including university or other studies, paid employment or volunteer work, and from sport, hobbies and other interests.

The first submission is a self-assessment exercise to be submitted via iLearn before midnight Friday of Week 3. Based on that self assessment, students then complete the second submission: a post-activity audit of graduate capabilities and a 1000-word reflective journal report to be submitted in the final week of classes. The final report provides analysis and reflections about the process of self-assessment that students have undertaken and analysis of the evidence gathered. Each of the two submissions carries a weight of 10%.

Complete details of the Reflective Journal are available in the course assignment guidelines.

On successful completion you will be able to:

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- Enhance awareness of analytics' contribution to society through discussion of ethical and professional conduct and issues in corporate social responsibility

## Final Analytics Project Report

Due: **Weeks 11-13**

Weighting: **45%**

Students are required to complete a recommended analytics solution of the Client Partner focusing on a particular analytics issue related to the organisation.

The analysis must demonstrate

1. clear understanding of the issues that are facing the organisation with respect to business problem and users and decision-makers; and
2. a willingness to explore appropriate and varying analytical strategies as developed in your training thus far; and
3. to be aware of ethical and social responsibility issues in the organisation

*Note:* Students will be required to complete a confidential assessment of their own contribution as well as the contribution of other members of the group to the report and presentation - a peer assessment.

### Final Analytics Project Report (30%) Half of this mark is for individual contribution

The Final Analytics Project Report is due Friday of Week 12, uploaded via iLearn.

A separate individual “*Student Evaluation of Member Participation*” should be submitted via iLearn **within a day of Final Group Report**. Complete details of the Final Group Report are available on iLearn.

Oral Presentation (15%) Individual Mark

The oral presentation must demonstrate

1. group understanding of the predominant issues in the organisation related to the problem and
2. the potential to develop suitable strategies to solve the challenges of the Client Partner.

• Each student will be marked on his/her individual presentation as part of the overall Group Project presentation. **An individual mark will be allocated, not a total group mark.**

As this is a group report it is highly unlikely that any circumstances would justify an extension. Individual absence from the presentation will incur a mark of zero for this part of the assignment, unless there are exceptional individual circumstances or prior arrangement.

On successful completion you will be able to:

- Demonstrate knowledge of data analysis techniques and apply various quantitative data analysis techniques to resolve the information needs of an organisation.

- Be able to conduct an organisational and industry analysis to assess business opportunities by analysing customers, competitors, collaborators, and other external forces in a collaborative setting.
- Critically examining problem areas, developing feasible analytics investment decision options, developing key recommendations, and communicating this strategic thinking to others

## Delivery and Resources

### Classes

The unit is comprised of:

- 13 x 3-hour seminars in weeks 1 to 13.
- Students are required to form groups in Week 2 of semester.

With relatively small numbers in this class this session, we have some flexibility with our timetable. We shall meet at agreed times each week in the scheduled seminar room.

### Group Work

Group work is an inherent requirement for completing this unit satisfactorily.

## Required unit materials and/or recommended readings

### Textbook

No formal textbook has been set for this unit. None suits the range of topics introduced here.

### Recommended Readings

As a Capstone Unit, we will not be introducing "new" information to the unit, but we will have some recommended readings included in the *iLearn* website for this unit so that we can better understand the context in which we are applying our analytical knowledge.

### Technology used and required

We will make use of Data-Visualisation software, [Tableau®](#). We have a teaching license for the semester, and students will be given a key to download the full program for use in study at home. You will make use of other data analytics software as needed. You may decide to use any tools that you find most appropriate for the task and your confidence & skill levels.

### Important note

Our *iLab* system is not compatible with our [Tableau®](#) Teaching License, so we cannot install [Tableau®](#) in the labs. Similarly, the *iLab* system is unlikely to have up-to-date versions of *R*, *Python*, *Orange*, or *RapidMiner*. Students are strongly encouraged to bring laptop computers to the seminar/workshops.

## Unit Web Page

Course material is available on the learning management system ([iLearn](#)). The general online website is <http://ilearn.mq.edu.au>

## Unit Schedule

The unit schedule appears on the following pages. We are still learning about the expectations of industry, and the capabilities and interests of our students, so we may make small changes to the timing and attention to different topics as the unit progresses.

## Research and Practice

This unit draws from current research undertaken by the instructor and other members of the *Faculty of Business and Economics*. Examples of research results, instrumentation, and raw data are used in lectures and workshops to expand on and update the information presented in the unit readings.

## Timetable

Timetables for this and other units, and for end-of-session examinations can be found at the [Timetables portal](#): <http://timetables.mq.edu.au>

## Unit Schedule

The following schedule is our currently planned order of proceedings.

### Dates for client meetings may change.

Week	Lecture/ Seminar	Notes
1: July 30	Introduction to Business Analytics Project  Course Assessment & Overview	Review of learning activities from prerequisite, MGMT320
2: August 6	Overview of analytical Tools and Frameworks	<b>Formation of groups of 3 or 4</b>  Discussion on Group Dynamics  Overview of assessment, workshops and consultations.  Overview of business ethics and social responsibility.  Reflective Journal Overview
3: August 13	Client Partner Meeting	<b>Reflective Journal Part A</b>



4: August 20		<b>First Reports due this week</b>
5: August 27	Client Partner Meeting	Learning Styles Review exercise Review of potential data analysis & reporting tools applicable to the problem.
6: September 3	Translation of client problem into information needs.	Visiting Speaker
7: September 10	Formal guideline for project expectations  Review of information needs and skills/ training needed.	Visiting Speaker  <b>Progress Reports due on iLearn</b>
<b>Mid Semester Break: September 16 - 27</b>		
8: October 1	Client Partner Meeting	Discuss project progress, and review deliverables.
9: October 8	Project Consultation Seminars	Draft report consultation
10: October 15	Project Consultation Seminars	Draft report consultation
11: October 22	Project Consultation Seminars	Draft report consultation
12: October 29	Group Marketing Project Presentations	<b>Final Group Report due on iLearn.</b>
13: November 7th	<b>Final Presentations to Corporate Partner</b>	Group will make a 30 minute presentation (including questions) that highlights their findings and recommendations.  <b>Reflective Journal Part B on iLearn.</b>

## Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central \(https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central\)](https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central). 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](#)
- [Grade Appeal Policy](#)
- [Complaint Management Procedure for Students and Members of the Public](#)
- [Special Consideration Policy](#) (**Note:** *The Special Consideration Policy is effective from 4 December 2017 and replaces the Disruption to Studies Policy.*)

Undergraduate students seeking more policy resources can visit the [Student Policy Gateway](https://students.mq.edu.au/support/study/student-policy-gateway) (<https://students.mq.edu.au/support/study/student-policy-gateway>). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

If you would like to see all the policies relevant to Learning and Teaching visit [Policy Central](http://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central) (<http://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central>).

## Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: <https://students.mq.edu.au/study/getting-started/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)

## Student Support

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

## Learning Skills

Learning Skills ([mq.edu.au/learningskills](http://mq.edu.au/learningskills)) provides academic writing resources and study strategies to improve your marks and take control of your study.

- [Workshops](#)
- [StudyWise](#)
- [Academic Integrity Module for Students](#)
- [Ask a Learning Adviser](#)

## Student Services and Support

Students with a disability are encouraged to contact the [Disability Service](#) who can provide appropriate help with any issues that arise during their studies.

## Student Enquiries

For all student enquiries, visit Student Connect at [ask.mq.edu.au](http://ask.mq.edu.au)

If you are a Global MBA student contact [globalmba.support@mq.edu.au](mailto:globalmba.support@mq.edu.au)

## 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.

## Graduate Capabilities

### Capable of Professional and Personal Judgement and Initiative

We want our graduates to have emotional intelligence and sound interpersonal skills and to demonstrate discernment and common sense in their professional and personal judgement. They will exercise initiative as needed. They will be capable of risk assessment, and be able to handle ambiguity and complexity, enabling them to be adaptable in diverse and changing environments.

This graduate capability is supported by:

### Learning outcomes

- Demonstrate knowledge of data analysis techniques and apply various quantitative data analysis techniques to resolve the information needs of an organisation.
- Be able to conduct an organisational and industry analysis to assess business opportunities by analysing customers, competitors, collaborators, and other external forces in a collaborative setting.
- Critically examining problem areas, developing feasible analytics investment decision options, developing key recommendations, and communicating this strategic thinking to others

### Assessment tasks

- Report
- Reflective Journal
- Final Analytics Project Report

## Discipline Specific Knowledge and Skills

Our graduates will take with them the intellectual development, depth and breadth of knowledge, scholarly understanding, and specific subject content in their chosen fields to make them competent and confident in their subject or profession. They will be able to demonstrate, where relevant, professional technical competence and meet professional standards. They will be able to articulate the structure of knowledge of their discipline, be able to adapt discipline-specific knowledge to novel situations, and be able to contribute from their discipline to inter-disciplinary solutions to problems.

This graduate capability is supported by:

### Learning outcomes

- Successfully work in teams to achieve group and organisational objectives.
- Demonstrate knowledge of data analysis techniques and apply various quantitative data analysis techniques to resolve the information needs of an organisation.
- Be able to conduct an organisational and industry analysis to assess business opportunities by analysing customers, competitors, collaborators, and other external forces in a collaborative setting.
- Critically examining problem areas, developing feasible analytics investment decision options, developing key recommendations, and communicating this strategic thinking to others

### Assessment tasks

- Report
- Individual Progress Report
- Reflective Journal
- Final Analytics Project Report

## Critical, Analytical and Integrative Thinking

We want our graduates to be capable of reasoning, questioning and analysing, and to integrate and synthesise learning and knowledge from a range of sources and environments; to be able to critique constraints, assumptions and limitations; to be able to think independently and systemically in relation to scholarly activity, in the workplace, and in the world. We want them to have a level of scientific and information technology literacy.

This graduate capability is supported by:

### Learning outcomes

- Successfully work in teams to achieve group and organisational objectives.
- Demonstrate knowledge of data analysis techniques and apply various quantitative data analysis techniques to resolve the information needs of an organisation.

- Be able to conduct an organisational and industry analysis to assess business opportunities by analysing customers, competitors, collaborators, and other external forces in a collaborative setting.
- Critically examining problem areas, developing feasible analytics investment decision options, developing key recommendations, and communicating this strategic thinking to others
- Enhance awareness of analytics' contribution to society through discussion of ethical and professional conduct and issues in corporate social responsibility

## **Assessment tasks**

- Report
- Individual Progress Report
- Reflective Journal
- Final Analytics Project Report

## **Problem Solving and Research Capability**

Our graduates should be capable of researching; of analysing, and interpreting and assessing data and information in various forms; of drawing connections across fields of knowledge; and they should be able to relate their knowledge to complex situations at work or in the world, in order to diagnose and solve problems. We want them to have the confidence to take the initiative in doing so, within an awareness of their own limitations.

This graduate capability is supported by:

## **Learning outcomes**

- Successfully work in teams to achieve group and organisational objectives.
- Demonstrate knowledge of data analysis techniques and apply various quantitative data analysis techniques to resolve the information needs of an organisation.
- Be able to conduct an organisational and industry analysis to assess business opportunities by analysing customers, competitors, collaborators, and other external forces in a collaborative setting.
- Critically examining problem areas, developing feasible analytics investment decision options, developing key recommendations, and communicating this strategic thinking to others

## **Assessment tasks**

- Report
- Individual Progress Report
- Reflective Journal

- Final Analytics Project Report

## Socially and Environmentally Active and Responsible

We want our graduates to be aware of and have respect for self and others; to be able to work with others as a leader and a team player; to have a sense of connectedness with others and country; and to have a sense of mutual obligation. Our graduates should be informed and active participants in moving society towards sustainability.

This graduate capability is supported by:

### Learning outcome

- Enhance awareness of analytics' contribution to society through discussion of ethical and professional conduct and issues in corporate social responsibility

### Assessment tasks

- Individual Progress Report
- Reflective Journal

## Changes from Previous Offering

This is the fourth offering of this unit, and the largest number of candidates so far. As such, the contents may change as the needs of students and of the client emerge. Assessment, of course, does not change.

## Global Contexts and Sustainability

- This unit enables students to understand the analytics problems from the perspectives of users and decision-makers in global business context in Internet era through the group project.
- Students are expected to attain higher level of awareness of sustainability by investigating the characteristics, organisational culture, profitability, potential, and variation of interest groups and understanding business's commitment to the protect stakeholder wellbeing, environmental and social benefits.

## Research and Practice

- This unit uses research by Macquarie University researchers.
- This unit uses research from external sources.
- This unit gives you opportunities to conduct your own research and to refine your interest in Business Analytics or other contemporary business practices in different contexts.