



MMBA8113

Big Data and Managerial Decisions

MGSM term 2, Intensive attendance, Hong Kong 2020

Department of Actuarial Studies and Business Analytics

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General Information

Unit convenor and teaching staff
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Credit points
10

Prerequisites
MGSM960 or MMBA8160

Corequisites

Co-badged status

Unit description

This unit is a bridge between business and information technology and will equip the students with knowledge and skills required to lead and manage big data and data science projects for organisations. Specifically, the unit focuses on data science development practices and the underlying big data applications, on both strategic and operational levels.

More importantly, this unit focuses on transforming business processes through big data and data science, the impact on companies' IT infrastructure, the use of resources to conduct data science workstreams, and identifying the necessary technological underpinnings of big data ecosystem.

The unit is especially tailored for MBA students and business managers with a primary focus on managerial discussions surrounding big data employment and decision making using big data and analytics insights within large companies. The technical aspect of the unit is on a level comprehensible and applicable by MBA students who do not necessarily possess technical training in big data software applications.

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: Develop a broad understanding and knowledge of the Big Data ecosystem and its applications within the context of managerial decision-making processes.

ULO2: Explore Data Science theories, methodologies and tools and their practical applications to solve real life business problems.

ULO3: Use tangible and intangible resources to gain insights from large and versatile sets of data and understand the additional requirements needed.

ULO4: Apply and/or customise big data and data science solutions to various business contexts.

Assessment Tasks

Coronavirus (COVID-19) Update

Assessment details are no longer provided here as a result of changes due to the Coronavirus (COVID-19) pandemic.

Students should consult [iLearn](#) for revised unit information.

[Find out more about the Coronavirus \(COVID-19\) and potential impacts on staff and students](#)

Delivery and Resources

Coronavirus (COVID-19) Update

Any references to on-campus delivery below may no longer be relevant due to COVID-19.

Please check here for updated delivery information: https://ask.mq.edu.au/account/pub/display/unit_status

Prescribed Textbook:

- Big Data MBA (2016), Bill Schmarzo. Wiley Publishing, ISBN (Hardcover): 978-1119181118

Recommended Textbooks:

- HBR Guide to Data Analytics Basics for Managers (2018), Harvard Business Review Press, ISBN (Hardcover): 978-1633694286
- Data Science for Business: What You Need to Know about Data Mining and Data-Analytic Thinking (2013), Foster Provost, O'Reilly Media, Inc, ISBN (Hardcover): 978-1449361327

Further sources of information:

Top academic management and information systems outlets (some suggestions)

- Harvard business review

- MIT Sloan Review
- MIS Quarterly
- Information Sciences
- Information Systems Research

Useful academic databases (DB), search engines (SE), and publishers (PB)

- Emerald Insight (DB)
- Elsevier (DB)
- Scopus (SE)
- Web of Science (SE)
- Wiley (PB)
- Springer (PB)

Useful Industry databases

- IBISWorld
- Factiva
- EBSCO Business Searching Interface

Access to Technology

Access to a personal computer and internet connection is required to access learning material/ resources online on Macquarie University's online learning management system called iLearn.

iLearn - Your class online learning resources page

The class iLearn page for this unit is located at: <https://ilearn.mq.edu.au/>. You must be enrolled in this class to see the class iLearn page.

Lecture Slides

Lecture Slides will be provided to students only in soft-copy format via the class iLearn page. You must be enrolled in this class to see these items in the class iLearn page.

Readings

Readings are provided to students only in soft-copy format via the class iLearn page. You must be enrolled in this class to see these items in the class iLearn page.

Email Use

It is University policy that the University issued email account will be used for official University communication. All students are required to access their University account frequently. Only contact Macquarie University staff (including tutors), using your official MQ student's account because this is one method used to verify your identity.

Unit Schedule

Coronavirus (COVID-19) Update

The unit schedule/topics and any references to on-campus delivery below may no longer be relevant due to COVID-19. Please consult [iLearn](#) for latest details, and check here for updated delivery information: https://ask.mq.edu.au/account/pub/display/unit_status

The classes will be delivered across 6 days as May 29 - 31 and 5 - 7 June 2020 into 10 sessions as follows:

Session / day	Topics
1 (day 1)	Introduction to Big Data & Data Science
2 (day 1)	Big Data, Best Practices & Managerial Decisions
3 (day 2)	Fundamentals of Statistics
4 (day 2)	Exploratory Data Analysis
5 (day 3)	Introduction to Predictive Modelling – part 1
6 (day 3)	Introduction to Predictive Modelling – part 2
7 (day 4)	Visualisation & Story Telling
8 (day 4)	Big Data Architecture, Operationalisation & Model Management
9 (day 5)	Putting it Altogether – Big Data Business Strategy Roadmap

Session / day	Topics
10 (day 6)	Group Assignment Presentation

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.*)

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](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>).

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 or if you are a Global MBA student contact 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) provides academic writing resources and study strategies to help you improve your marks and take control of your study.

- [Getting help with your assignment](#)
- [Workshops](#)
- [StudyWise](#)
- [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

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

If you are a Global MBA student contact 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/.

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.