BUSA6430

Business Applications of Artificial Intelligence

Session 2, In person-scheduled-weekday, North Ryde 2024

Department of Actuarial Studies and Business Analytics

Contents

General Information

Unit convenor and teaching staff
Unit Convenor
Matthew Mansour
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4RPD Building - Room 375
Check ilearn

Credit points
10

Prerequisites
COMP6200

Corequisites

Co-badged status

Unit description
This unit looks at practical applications of AI systems in a business context, including how AI systems can be deployed, integrated with other business systems, and maintained in the longer term. Some areas that may be covered include the use of recommender systems, text mining, decision support systems and automated assessment of candidates. The unit includes a discussion of the ethical and legal questions raised by the deployment of these systems in a business and of the long-term sustainability of such systems.

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: Evaluate the capabilities of modern AI systems against the needs of business

ULO2: Assess the sustainability of AI solutions in an industry context

ULO3: Describe the issues that arise in deploying AI systems as part of a larger information systems offering

ULO4: Evaluate stakeholder focused AI algorithms and systems

ULO5: Communicate effectively about artificial intelligence topics to experts and non-

technical audiences

ULO6: Successfully work in teams to achieve group and organizational objectives

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. A1-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
Weekly Tutorial Participation	10%	No	Weeks 2-13
In-term quizzes	20%	No	Week 5 / Week 9 / Week 12
AI Industry Case Study	30%	No	Week 7
Team Project	40%	No	Week 13

Weekly Tutorial Participation

Assessment Type [1]: Participatory task
Indicative Time on Task [2]: 0 hours
Due: **Weeks 2-13**
Weighting: **10%**

Students will be required to actively contribute to weekly tutorials in different ways that encourage and value different learning styles and needs. Attendance does not count as contribution.

On successful completion you will be able to:

- Evaluate the capabilities of modern AI systems against the needs of business
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systems offering
- Evaluate stakeholder focused AI algorithms and systems
- Communicate effectively about artificial intelligence topics to experts and non-technical audiences

In-term quizzes

Assessment Type [1]: Quiz/Test
Indicative Time on Task [2]: 11 hours
Due: **Week 5 / Week 9 / Week 12**
Weighting: **20%**

Students will be required to complete two or more short quizzes designed to test the AI fundamentals covered in weekly classes.

On successful completion you will be able to:
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AI Industry Case Study

Assessment Type [1]: Case study/analysis
Indicative Time on Task [2]: 34 hours
Due: **Week 7**
Weighting: **30%**

Students will be required to analyse one or more AI case studies using the concepts and frameworks covered in class.

On successful completion you will be able to:
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- Communicate effectively about artificial intelligence topics to experts and non-technical audiences

Team Project

Assessment Type [1]: Project
Indicative Time on Task [2]: 40 hours
Due: **Week 13**
Weighting: **40%**

This assignment consists of two components: Group project (30 marks) and individual reflections on the project (10 marks).

Students will be required to complete a group project related to business applications of AI in an organisational setting, taking a business perspective. Additionally, each team member will be required to complete an individual reflection on the project.

On successful completion you will be able to:

- Evaluate the capabilities of modern AI systems against the needs of business
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- Communicate effectively about artificial intelligence topics to experts and non-technical audiences
- Successfully work in teams to achieve group and organizational objectives

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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

The unit is comprised of 13 weekly classes (2h-hour lecture + 1h-tutorial), held on-campus in weeks 1 to 13. The unit is not designed for remote learning. Weekly in-person attendace is expected in both lectures and tutorials.

Technology to be used and required.

Students will need to be able to access ilearn and to download materials from it for class. Students are required to ensure that they either bring hard copies of all specified materials to class or ensure that they can access and use electronic copies of documents and readings in class. For this an ipad, tablet or laptop (mac or PC) is highly recommended. **NB.** A mobile phone will not suffice for most classes.

Textbook

Due to the rapid advancements in AI and its applications in business, a dedicated textbook isn't available. Instead, we'll provide weekly readings and materials to keep pace with current trends. Thank you for your understanding.

Unit material

Material for the unit can be found on ilearn.

News Forum

Your lecturers will post regular reminders in regard to assessments and/or anything that is happening in the week. It is your responsibility to keep up to date with everything with the unit.

Methods of Communication

We will communicate with you via your university email and through announcements on iLearn.

Queries can either be sent to the unit convenor via the contact email on iLearn or in consultation.

Unit Schedule

Week	Weekly Topic/Theme
Week 1	Introduction to Business Applications of Artificial Intelligence
Week 2	AI for Business
Week 3	AI Core: Data & Analytics
Week 4	AI-Enabled Business Models
Week 5	Business Domains/contexts of AI applications
Week 6	Business Domains/contexts of AI applications

Week 7	AI and Business Process Management: From AI-enhanced BPs to AI-driven BP innovation and Transformation
Week 8	AI Technologies in Business
Week 9	Introduction to Large Language Models
Week 10	The Economics of AI
Week 11	Responsible AI
Week 12	Industry-level applications of AI: AI-powered Algorithmic Decision Making (ADM) in Human Services (Social Support, Employment, Education and Healthcare)
Week 13	Future of AI: AI and future of work, organisations and society - How to 'future-proof' your AI career

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 Student 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) 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 connect.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 the Service Connect Portal, 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

New Unit Convenor

Updated references and journals to review.

Unit information based on version 2024.04 of the Handbook