



# FOSX3000

## Making Science Work for You and Society: Capstone

Session 2, Online-scheduled-weekday 2023

*Science and Engineering Faculty level units*

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#### Disclaimer

Macquarie University has taken all reasonable measures to ensure the information in this publication is accurate and up-to-date. However, the information may change or become out-dated as a result of change in University policies, procedures or rules. The University reserves the right to make changes to any information in this publication without notice. Users of this publication are advised to check the website version of this publication [or the relevant faculty or department] before acting on any information in this publication.

## General Information

Unit convenor and teaching staff

Unit Convenor

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Credit points

10

Prerequisites

Admission to BSc and 20cp at 3000 level

Corequisites

Co-badged status

FOSE3000

Unit description

How do the skills and knowledge you have acquired fit you for the next step beyond your degree? What is the role of scientific thinking in the workplace and in solving society's problems? A major component of this unit is a cross-disciplinary project, in which you will collaborate with students from other majors in the Bachelor of Science. You will identify and practice employability and workplace skills, connecting your university experiences to career aspirations. By actively reflecting on prior learning and experiences, you will build and articulate a positive self-understanding, exploring opportunities and clarifying goals for the next stage of your career.

## 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:** Select and apply practical and/or theoretical techniques or tools from your discipline to conduct an investigation.
- ULO2:** Design and plan a professional cross-disciplinary investigation, using scientific thinking and creative strategies to devise and promote innovation.
- ULO3:** Explain the role and relevance of science in society, using examples from your and other scientific disciplines.
- ULO4:** Plan your next steps after graduation, through an appraisal of personal achievements and the current and projected work environment.
- ULO5:** Explain, with an employment and interview focus, how your study and achievements transfer to other contexts, orally and in writing.
- ULO6:** Work effectively, responsibly and safely, as an individual and as part of a team, applying knowledge of ethical principles and professional conduct.

## General Assessment Information

### Hurdle Assessments

There are no hurdle assessments in this unit.

### Requirements to Pass the Unit

To pass the unit you must:

- Achieve a total mark greater than or equal to 50%

### Assessment Criteria

Assessment at Macquarie University is standards-based, as outlined in the [Assessment Policy](#). This means that your work will be assessed against clear criteria, and these criteria will be made available when the assessment tasks are released to you on iLearn.

### Submission of Assessments

All assignments must be submitted online through [Turnitin](#) unless otherwise indicated. Links for the submission of each assignment will be available on [iLearn](#). The due dates for all assessment tasks are not negotiable. If you have commitments that will significantly impact your study during the session then you must plan for this in advance as part of an effective individual study plan and you may need to contact the unit convenor for advice.

### Marking of Assessments

Assignments will be marked through Turnitin and feedback will be given via iLearn. **Do not** submit your assignments via email or in hard copy. Your grades will be returned using the

Grades Report on iLearn.

We aim to return your assignments with feedback within two to three weeks of the date that you submit your assignment, and before your next assignment is due. We appreciate your patience and will advise you through iLearn when your marked assignments and feedback are available for viewing.

### ChatGPT and Artificial Intelligence (AI)

The use of ChatGPT and other AI tools is forbidden for **generating ideas/material** for assessments and, if suspected, will be reported as a breach of Academic Integrity. However, ChatGPT and other AI tools may be used in some assessments for improving readability and streamlining text. Further information on the use of ChatGPT and other AI tools will be provided in the assessment descriptions provided on iLearn.

### Late Assessment Submission Penalty

Unless a Special Consideration request has been submitted and approved, a **5% penalty** (of the total possible mark of the task) will be applied for each day a written report or presentation 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. The submission time for all uploaded assessments is **11:55 pm**. A 1-hour grace period will be provided to students who experience a technical concern. For any late submission of time-sensitive tasks, such as scheduled tests/exams, performance assessments/presentations, and/or scheduled practical assessments/labs, please apply for [Special Consideration](#).

### Assessments where Late Submissions will be accepted

- Pitch an idea – **NO**, Unless Special Consideration is Granted
- Reflection on your skills, knowledge and capabilities – **YES**, Standard Late Penalty applies
- Cross-discipline consultation – **YES**, Standard Late Penalty applies
- Project Presentation – **NO**, Unless Special Consideration is Granted
- Project Plan – **YES**, Standard Late Penalty applies

### Special Consideration

The [Special Consideration Policy](#) aims to support students who have been impacted by short-term circumstances or events that are serious, unavoidable and significantly disruptive, and which may affect their performance in assessment. If you experience circumstances or events that affect your ability to complete the assessments in this unit on time, please inform the convenor and submit a Special Consideration request through [ask.mq.edu.au](https://ask.mq.edu.au).

## Assessment Tasks

Name	Weighting	Hurdle	Due
<a href="#">Pitch an idea</a>	10%	No	Week 3

Name	Weighting	Hurdle	Due
Reflection on your skills, knowledge and capabilities	20%	No	Weeks 5 and 13
Cross-discipline consultation	10%	No	Mid-Semester break
Project presentation	20%	No	Week 11
Project plan	40%	No	Week 13

## Pitch an idea

Assessment Type <sup>1</sup>: Presentation

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

Due: **Week 3**

Weighting: **10%**

Generate a project idea and pitch it as a team via video to a non-expert audience.

On successful completion you will be able to:

- Explain, with an employment and interview focus, how your study and achievements transfer to other contexts, orally and in writing.
- Work effectively, responsibly and safely, as an individual and as part of a team, applying knowledge of ethical principles and professional conduct.

## Reflection on your skills, knowledge and capabilities

Assessment Type <sup>1</sup>: Reflective Writing

Indicative Time on Task <sup>2</sup>: 20 hours

Due: **Weeks 5 and 13**

Weighting: **20%**

Reflective writing relating studies and experiences to future plans.

On successful completion you will be able to:

- Plan your next steps after graduation, through an appraisal of personal achievements and the current and projected work environment.

- Explain, with an employment and interview focus, how your study and achievements transfer to other contexts, orally and in writing.
- Work effectively, responsibly and safely, as an individual and as part of a team, applying knowledge of ethical principles and professional conduct.

## Cross-discipline consultation

Assessment Type **1**: Case study/analysis

Indicative Time on Task **2**: 7 hours

Due: **Mid-Semester break**

Weighting: **10%**

Analyse a project plan from another discipline and provide consultative feedback.

On successful completion you will be able to:

- Select and apply practical and/or theoretical techniques or tools from your discipline to conduct an investigation.
- Design and plan a professional cross-disciplinary investigation, using scientific thinking and creative strategies to devise and promote innovation.
- Work effectively, responsibly and safely, as an individual and as part of a team, applying knowledge of ethical principles and professional conduct.

## Project presentation

Assessment Type **1**: Presentation

Indicative Time on Task **2**: 20 hours

Due: **Week 11**

Weighting: **20%**

Present and pitch a team project via video. Includes formative exercise and peer assessment.

On successful completion you will be able to:

- Select and apply practical and/or theoretical techniques or tools from your discipline to conduct an investigation.
- Design and plan a professional cross-disciplinary investigation, using scientific thinking and creative strategies to devise and promote innovation.
- Explain the role and relevance of science in society, using examples from your and other

scientific disciplines.

- Work effectively, responsibly and safely, as an individual and as part of a team, applying knowledge of ethical principles and professional conduct.

## Project plan

Assessment Type <sup>1</sup>: Plan

Indicative Time on Task <sup>2</sup>: 20 hours

Due: **Week 13**

Weighting: **40%**

Plan for a cross-disciplinary project. Components of peer and self assessment.

On successful completion you will be able to:

- Select and apply practical and/or theoretical techniques or tools from your discipline to conduct an investigation.
- Design and plan a professional cross-disciplinary investigation, using scientific thinking and creative strategies to devise and promote innovation.
- Explain the role and relevance of science in society, using examples from your and other scientific disciplines.
- Work effectively, responsibly and safely, as an individual and as part of a team, applying knowledge of ethical principles and professional conduct.

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<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

### Unit communications

Unit staff will communicate with you via your university email or through announcements on iLearn.

Discussion board: In order to discuss issues of relevance to all students, please use the Discussion Board feature of iLearn. The chances are that if you are confused about something in

the unit, so are your peers, so it will be useful to share your questions with all. These questions may be regarding the content of the modules (i.e. a concept you don't understand) or about requirements of the unit.

Email: For matters of a more personal nature, and that do not concern other students (i.e. requests for extensions, etc.), you should contact the Unit Convener, Matt Owers, by email. Contact details are provided at the start of this document.

## **Classes**

The class timetable can be found through the [Timetable](#) portal. A detailed class schedule with assessment due dates will be made available to all enrolled students through [iLearn](#). Students complete approximately 36 hours of class work (in scheduled workshops or equivalent online) and are expected to undertake 114 hours of personal study, reading and reflection to complete the unit and present the assessment tasks. Students are responsible for managing their time for learning and the tasks for group work. You will need to **bring a laptop computer or tablet to class each week**. If this is problematic for you, please contact the unit convenor who will help provide a solution. You will also need to have access to a computer to use the university systems (e.g. iLearn, library) and complete the assessment tasks.

## **Online materials**

This unit is supported by guided online learning via a series of online components. The link for these components can be found in the [iLearn](#) site. Each week you will be expected to complete the component (on a particular theme) for that week in your own study time and before the workshop so that you are familiar with the content.

## **Workshops**

Students enrolled in the on-campus offering are expected to attend weekly 3 hour workshops that will be held on campus. Students enrolled in online offerings will complete equivalent activities online, and will be provided with opportunities to interact with each other and unit staff via online meetings. Where in-person workshops occur, they will be very interactive and hands-on, exploring the theme for each week. Make sure that you have completed the weekly pre-workshop online materials **before** attending the workshop, as they are designed to provide you with a framework and are an essential and important component of the unit. The online learning components are by no means exhaustive on each and every topic, and you are expected to supplement them by conducting your own research and reading. The workshops will be structured as small group discussions and tasks - the **more** you contribute the more you will learn and gain from this unit. The workshops will also provide time and support for working on the main project in teams.

## **COVID Information**

For the latest information on the University's response to COVID-19, please refer to the Coronavirus infection page on the Macquarie website: <https://www.mq.edu.au/about/coronavirus-faqs>. Remember to check this page regularly in case the information and requirements change during semester. If there are any changes to this unit in relation to COVID, these will be communicated via iLearn.



## Unit Schedule

Week	Workshop Topic
1	Unit Introduction and Seeding Ideas
2	Refining and Pitching Ideas
3	Evaluating Ideas and Creating CVs
4	Forming Teams
5	Statistical Thinking and Customer Discovery
6	Budgeting and Data Visualisation
7	Ethics, Values and Project Viability
8	Discipline Consultations, Project Planning and Timelines
9	Improving Reflections, Working in Cross-Cultural Teams
10	The Art of Persuasion
11	Project Pitches and Guest Lecture
12	Guest Lecture
13	Steps towards a Career (no in-person workshop)

Note that the above schedule is flexible and subject to change!

## 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](https://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 Advocacy](#) provides independent advice on MQ policies, procedures, and processes

## 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

Matt Owers takes on the convening role again for S2, while Joanne Dawson, Jessica Boomer, Ken Cheng, Ayse Bilgin, and Thomas Volz all remain on board from S1.