



NSCI7900

Research Frontiers in Natural Sciences

Session 1, In person-scheduled-weekday, North Ryde 2025

School of Natural Sciences

Contents

<u>General Information</u>	2
<u>Learning Outcomes</u>	2
<u>General Assessment Information</u>	3
<u>Assessment Tasks</u>	4
<u>Delivery and Resources</u>	6
<u>Policies and Procedures</u>	7
<u>Changes from Previous Offering</u>	9

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

Paul Jaschke

paul.jaschke@mq.edu.au

Contact via email

14ER 357

Credit points

10

Prerequisites

Admission to GradDipResFSE or GradCertResFSE

Corequisites

Co-badged status

Unit description

This foundation unit deeply engages students with the broad topics, big questions, strategies, new directions of scientific thought and break-through methods currently emerging in the biological, chemical, earth and environmental sciences. Activities undertaken include tailored workshops and presentations by research groups and academics, seminar attendance, directed reading of research literature, as well as the discussion and critique of wide-ranging research topics. Students will demonstrate their understanding of current research and develop their science communication skills based on the research frontiers explored; they will become embedded in our active research community, and reflect on their future goals in their chosen discipline.

Learning in this unit enhances student understanding of global challenges identified by the United Nations Sustainable Development Goals ([UNSDGs](#)) Quality Education; Industry, Innovation and Infrastructure

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: Demonstrate an understanding of current scientific questions and methods

ULO2: Critically evaluate and discuss current research with other researchers

ULO3: Communicate current research questions, methods and results in multiple formats to a variety of audiences with supporting evidence

ULO4: Apply networking skills in a variety of contexts with peers and partners from industry and academia

ULO5: Critically reflect on your current knowledge and transferability of these in relation to your career aspirations inside and/or outside academia

General Assessment Information

All assignments must be submitted as soft copy before the date & time specified on iLearn. Specific instructions for how to successfully complete assessments will be provided on iLearn. Criteria and standards required for the assessment tasks will be available on iLearn.

In-class activities must be undertaken at the time indicated on iLearn. All other assessments must be submitted by their due date or at the day and time agreed with the unit convenor. Should these activities be missed due to illness or misadventure, students should contact the unit convenor prior to applying for Special Consideration.

Engagement – please read, as this is very important

As a Graduate Diploma of Research student you are becoming part of our community of researchers. You need to be an active participant in the unit activities. You will be expected to lead and participate in discussions, ask questions, engage with seminar speakers, and proactively work to find your place in our diverse research community.

Late Assessment Submission Penalty

Unless a Special Consideration request has been submitted and approved, or late submission arranged with the unit convenor, 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.

Assessments where Late Submissions will be accepted

In this unit, late submissions will be accepted as follows:

Seminar and discussion Engagement – YES, Standard Late Penalty applies

General audience science communication – YES, Standard Late Penalty applies

Professional development journal – YES, Standard Late Penalty applies

Requirements to Pass this Unit

To pass this unit you must achieve a total mark equal to or greater than 50%

Attendance and participation

We strongly encourage all students to actively participate in all learning activities. Regular engagement is crucial for your success in this unit, as these activities provide opportunities to deepen your understanding of the material, collaborate with peers, and receive valuable feedback from instructors, to assist in completing the unit assessments. Your active participation not only enhances your own learning experience but also contributes to a vibrant and dynamic learning environment for everyone.

Special Considerations

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 <https://connect.mq.edu.au>.

Assessment Tasks

Name	Weighting	Hurdle	Due
<u>Seminar and discussion Engagement</u>	20%	No	Weekly throughout semester
<u>General audience science communication</u>	30%	No	Week 10 or as agreed
<u>Professional development journal</u>	50%	No	Week 13

Seminar and discussion Engagement

Assessment Type ¹: Practice-based task

Indicative Time on Task ²: 0 hours

Due: **Weekly throughout semester**

Weighting: **20%**

You will demonstrate your learning by contributing to discussions following school seminars. You are also required to attend several relevant seminars and small group discussions outside the regularly scheduled seminar series. Please consult the marking guidance provided via iLearn for further information.

On successful completion you will be able to:

- Demonstrate an understanding of current scientific questions and methods

- Critically evaluate and discuss current research with other researchers
- Communicate current research questions, methods and results in multiple formats to a variety of audiences with supporting evidence
- Apply networking skills in a variety of contexts with peers and partners from industry and academia

General audience science communication

Assessment Type ¹: Non-academic writing

Indicative Time on Task ²: 30 hours

Due: **Week 10 or as agreed**

Weighting: **30%**

Using a seminar or discussion group as inspiration, you will complete a science communication piece (video, podcast, etc) aimed at a general audience.

On successful completion you will be able to:

- Demonstrate an understanding of current scientific questions and methods
- Critically evaluate and discuss current research with other researchers
- Communicate current research questions, methods and results in multiple formats to a variety of audiences with supporting evidence

Professional development journal

Assessment Type ¹: Reflective Writing

Indicative Time on Task ²: 55 hours

Due: **Week 13**

Weighting: **50%**

Over the course of the session you will document your professional development through a series of self-scheduled activities and reflections.

On successful completion you will be able to:

- Critically evaluate and discuss current research with other researchers
- Communicate current research questions, methods and results in multiple formats to a variety of audiences with supporting evidence
- Apply networking skills in a variety of contexts with peers and partners from industry and

academia

- Critically reflect on your current knowledge and transferability of these in relation to your career aspirations inside and/or outside academia

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

Attendance at scheduled activities

Should any activity be missed due to illness or misadventure please notify the convenor as soon as possible (ideally prior to the scheduled activity).

On-campus / in person is the preferred way to attend unit activities, but please do not attend class in person if you are unwell. See iLearn for details on attending unit activities online.

Weekly seminars and discussions will happen in person (if possible) or via Zoom link to be provided via iLearn.

Week 1 Classes

Full-day workshop: in-person with online backup available for students who are unwell. Please advise the convenor as soon as possible if you will not be attending in person so that appropriate arrangements can be made.

Seminar (in-person): 1-2 pm in 14ER 280 (Tea Room)

Workshop (in-person): 2-3 pm in 14ER 280 (Tea Room)

Subsequent weeks

First Tuesday of the month (e.g. 4 March, 1 April, etc.)

Workshop (in-person): see iLearn for scheduling and room details. No seminar.

Every other Tuesday of the month (e.g. 25 Feb, 11 March, etc.)

Seminar (in-person): 1-2 pm in 14ER 280 (Tea Room)

Workshop (in-person): 2-3 pm in 14ER 280 (Tea Room)

Methods of Communication

We will communicate with you via your [student](#) email and through [announcements on iLearn](#). Queries to convenors can either be placed on the iLearn discussion board or sent to the unit convenor via the contact email on iLearn.

Information for COVID or any other readily transmitted illness

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.

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 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

We value student feedback to be able to continually improve the way we offer our units. As such we encourage students to provide constructive feedback via student surveys, to the teaching staff directly, or via the FSE Student Experience & Feedback link in the iLearn page.

Changes in the 2025 offering:

The number and focus of assessments were changed due to student feedback and a change in university assessment policy.

Unit information based on version 2025.06 of the [Handbook](#)