# NSCI7910

## Advanced Scientific Writing

Session 1, Online-scheduled-weekday 2023

*School of Natural Sciences*

# Contents

**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
Ken Cheng
ken.cheng@mq.edu.au

Credit points
10

Prerequisites
Admission to MRes

Corequisites

Co-badged status

Unit description
This foundation unit focuses on developing key scientific writing skills in (i) critical review and synthesis of literature, (ii) scientific writing style, clarity and succinctness, (iii) bibliography management, (iv) peer review, and (v) grant writing. Students will explore an area of research that they may be unfamiliar with at the outset to produce a short opinion piece, and they will develop a grant proposal.

## 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:** Identify a relevant potential source of research funding and develop a grant proposal to a professional standard

**ULO2:** Demonstrate advanced skills in scientific writing and presentation

**ULO3:** Perform background research and synthesise existing scientific literature

**ULO4:** Construct and critique scientific arguments

**ULO5:** Critically review the work of your peers

**ULO6:** Analyse the ethics associated with your scientific discipline and how it relates to publishing papers

# General Assessment Information

Requirements to pass this unit

To pass this unit, a student must obtain a total mark of 50% or greater.

Hurdle assessments

This unit has no hurdle assessments.

**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 late submission of the time-sensitive task in this unit, the grant pitch, please apply for Special Consideration.

Submit assessments via the turnitin upload links in the Assessment box of the unit's iLearn page. For the annotated bibliography, email the annotated bibliography or a link to it to the convener and also upload some output file as a dummy file, so that a grade can be entered in iLearn.

For possible extensions for valid grounds, consult the University's special considerations policy: https://policies.mq.edu.au/document/view.php?id=136

Another explanation of the University-wide policy lateness policy

Due time is 23:55 on the due date.

## The new University-wide late penalties run as follows:

### 0-1 h late: grace period, no penalties

### 1-24 h late: 5% deducted off the total marks that the assignment is out of (typically 5 marks out of 100)

### more than 24 h late: 5% more deducted off the total marks that the assignment for each 24-h period or part thereof

### more than 7 days late: 100% deducted, meaning that the submitter gets 0

**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.

Marking and rubrics

Rubrics for the ethics assignment, the News & Views assignment, and the grant proposal are on iLearn (all in one file). Instructions for all assignments are on iLearn. We aim for a two-week turn-around time, but this is not always achievable with the rigours of the moderation process, in which two indpendent graders grade major assessments.

# Assessment Tasks

| Name | Weighting | Hurdle | Due |
|------|-----------|--------|-----|
| News & Views - Annotated bibliography & outline | 5% | No | End of Week 3 |
| News & Views - peer review | 10% | No | End of Week 6 |
| Ethics / Philosophy of science case study | 15% | No | End of Week 7 |
| News & Views | 20% | No | End of Midsemester break week 2 |
| Grant - pitch | 10% | No | Week 9 and Week 10 in class |
| Grant | 35% | No | End of Week 12 |
| Time on task dairy | 5% | No | End of Week 13 |

## News & Views - Annotated bibliography & outline

Assessment Type [1]: Annotated bibliography
Indicative Time on Task [2]: 14 hours
Due: **End of Week 3**
Weighting: **5%**

You will prepare an outline for your news and views piece with an annotated bibliography including at least 10 relevant papers including a short description/summary.

On successful completion you will be able to:

- Perform background research and synthesise existing scientific literature
- Construct and critique scientific arguments

## News & Views - peer review

Assessment Type [1]: Professional writing

Indicative Time on Task [2]: 7 hours
Due: **End of Week 6**
Weighting: **10%**

You will provide (and receive) constructive peer review on another student's news & views draft.

On successful completion you will be able to:

- Construct and critique scientific arguments
- Critically review the work of your peers

# Ethics / Philosophy of science case study

Assessment Type [1]: Case study/analysis
Indicative Time on Task [2]: 14 hours
Due: **End of Week 7**
Weighting: **15%**

You will complete a case study on an current ethical issue in publishing and/or research collaboration.

On successful completion you will be able to:

- Demonstrate advanced skills in scientific writing and presentation
- Perform background research and synthesise existing scientific literature
- Construct and critique scientific arguments
- Analyse the ethics associated with your scientific discipline and how it relates to publishing papers

# News & Views

Assessment Type [1]: Professional writing
Indicative Time on Task [2]: 21 hours
Due: **End of Midsemester break week 2**
Weighting: **20%**

You will write a News & Views style professional writing piece on a current topic in your discipline area. This assessment builds on the annotated bibliography, outline and peer review.

On successful completion you will be able to:

- Identify a relevant potential source of research funding and develop a grant proposal to a professional standard
- Demonstrate advanced skills in scientific writing and presentation
- Perform background research and synthesise existing scientific literature
- Construct and critique scientific arguments

# Grant - pitch

Assessment Type [1]: Presentation
Indicative Time on Task [2]: 14 hours
Due: **Week 9 and Week 10 in class**
Weighting: **10%**

You will give an oral presentation pitching your grant proposal idea.

On successful completion you will be able to:

- Identify a relevant potential source of research funding and develop a grant proposal to a professional standard
- Demonstrate advanced skills in scientific writing and presentation
- Perform background research and synthesise existing scientific literature
- Construct and critique scientific arguments

# Grant

Assessment Type [1]: Professional writing
Indicative Time on Task [2]: 45 hours
Due: **End of Week 12**
Weighting: **35%**

You will write a grant proposal to a professional standard.

On successful completion you will be able to:

- Identify a relevant potential source of research funding and develop a grant proposal to a professional standard
- Demonstrate advanced skills in scientific writing and presentation

- Perform background research and synthesise existing scientific literature
- Construct and critique scientific arguments

## Time on task dairy

Assessment Type [1]: Reflective Writing
Indicative Time on Task [2]: 7 hours
Due: **End of Week 13**
Weighting: **5%**

Through the session, you will keep a time on task diary. At the end of the session, you will reflect on the time required to perform various tasks, your time management, and identify ways to improve your time management, research planning, and ways to be more efficient in your work.

On successful completion you will be able to:

- Demonstrate advanced skills in scientific writing and presentation

---

[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

This year, we meet weekly through the semester on Tuesdays 10-12 at

**14 Sir Christopher Ondaatje Ave. room 100 theatrette**

**Note that we have no class in Week 8 because the scheduled class falls on ANZAC Day.**

**We will meet live, in person, with a zoom simulcast. Zoom link on the unit's iLearn page in the box on Unit Information.**

If you are not feeling well, by your own responsible judgement, then do not come to class. Join on zoom instead. When wearing a mask, choose a surgical mask or a N95 mask (preferably one approved by the Therapeutic Goods Administration), not any cloth mask. A *Nature* news item found that cloth masks are half as effective as surgical masks in a field trial.

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.

Communication

We will communicate with you via your university email or through announcements on iLearn. Queries to convenors can either be placed on the iLearn discussion board or sent by email to the convenor, via your university email.

# 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 ask.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 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/.

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

Little has changed from last year's offering except for tinkering to improve things in general.