

NSCI7910

Advanced Scientific Writing

Session 1, In person-scheduled-weekday, North Ryde 2024

School of Natural Sciences

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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

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

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

Late penalties apply to all assessments in this unit.

Special Consideration

The <u>Special Consideration Policy</u> aims to support students who have been impacted by shortterm 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.mg.edu.au.

Assessment Tasks

Name	Weighting	Hurdle	Due
News & Views - Annotated bibliography & outline	5%	No	Week 3
News & Views - peer review	10%	No	Week 6
Ethics / Philosophy of science case study	15%	No	Week 7
News & Views	20%	No	Midsemester Week 1
Grant - pitch	10%	No	Week 10
Grant	35%	No	Week 12
Time on task dairy	5%	No	Week 13

News & Views - Annotated bibliography & outline

Assessment Type 1: Annotated bibliography Indicative Time on Task 2: 14 hours Due: **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: **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: **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: **Midsemester Week 1** 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 10** 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: **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: **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 class will meet weekly on Tuesdays 11:00-13:00 starting in Week 1.

Methods of Communication

We will communicate with you via your university email and through announcements on iLearn. Queries to the convenor can be sent to the unit convenor via the contact email on iLearn.

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.

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central (https://policie s.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 <u>Student Policies</u> (<u>https://students.mq.edu.au/su</u> <u>pport/study/policies</u>). 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 <u>Policy Central</u> (<u>https://policies.mq.e</u> <u>du.au</u>) and use the <u>search tool</u>.

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 <u>eStudent</u>, (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 <u>eStudent</u>. For more information visit <u>ask.mq.edu.au</u> or if you are a Global MBA student contact globalmba.support@mq.edu.au

Academic Integrity

At Macquarie, we believe <u>academic integrity</u> – 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 <u>online writing an</u> d maths support, academic skills development and wellbeing consultations.

Student Support

Macquarie University provides a range of support services for students. For details, visit <u>http://stu</u> dents.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
- <u>Student Advocacy</u> 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 <u>http://www.mq.edu.au/about_us/</u>offices_and_units/information_technology/help/.

When using the University's IT, you must adhere to the <u>Acceptable Use of IT Resources Policy</u>. The policy applies to all who connect to the MQ network including students.

Changes from Previous Offering

Nothing substantial has changed from last year. The timing of events in class is a little different because the semester is scheduled differently from last year. The midsemester break is now after Week 8.

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.

Student feedback from the previous offering of this unit was very positive overall, with students pleased with the clarity around assessment requirements and the level of support from teaching staff. As such, no major change to the delivery of the unit is planned, although we will continue to strive to improve the level of support and the level of student engagement.

Unit information based on version 2024.04 of the Handbook