



EDST8707

The Science of Learning

Session 2, In person-scheduled-weekday, North Ryde 2026

Macquarie School of Education

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General Information

Unit convenor and teaching staff Convenor Hua-Chen Wang huachen.wang@mq.edu.au Contact via Message via iLearn Dialogue 25WWB By appointment
Credit points 10
Prerequisites Admission to MEd OR MEChild OR MIncSpecEd OR GradCertEdStud OR MTeach(Sec)
Corequisites FOAR8020 or FOAR8030 or EDST8000 or EDST8060 or EDST8537
Co-badged status
Unit description This unit introduces the learning sciences to teachers, education professionals, and others in cognate areas. It outlines cutting-edge research related to the brain and learning and explores new models of memory and cognition including cognitive load theory, deep encoding, and embodied cognition. In addition, the unit will explore interconnections with learner motivation and emotion. Drawing together these insights, the unit will equip students to critically evaluate and apply science of learning findings in practice.

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:** Understand cutting edge theories and research in the learning sciences.
- ULO2:** Integrate models of cognition and learning with educational and disciplinary goals.
- ULO3:** Apply learning science phenomena to specific ages and disciplines.
- ULO4:** Critically evaluate the role of learning sciences in educational practice and policy.

General Assessment Information

General Submission Information

All written assessments must be submitted electronically. Please format assessments using 12-point font and 1.5 spacing. Submissions must meet the required file type and formatting specifications outlined in the assessment guidelines. If you are unsure about the file format or have technical difficulties, it is your responsibility to seek assistance before the submission deadline. Students should be careful to check that they submit the correct file for an assessment as no re-submissions will be accepted after the due date and time, including instances where students upload an incorrect file. It is not the responsibility of unit staff to contact students who have failed to submit assessments. If you have any missing items of assessment, it is your responsibility to contact the unit convenor.

Turnitin plagiarism detection software is used to check all written assessments. It is the responsibility of all students to ensure that their submitted work is in a format compatible with Turnitin software for plagiarism checking. Students can use Turnitin's Originality Report as a learning tool to improve their academic writing if this option is made available in the unit.

Word limits are strictly applied, with + or – 10% applicable. Work above the word limit will not be marked.

Academic Integrity

Students should be aware of and apply the University policy on academic integrity (see: <https://policies.mq.edu.au/document/view.php?id=3>).

Artificial Intelligence

<https://students.mq.edu.au/study/assessment-exams/assessments/ai-and-assessment>

<https://policies.mq.edu.au/document/view.php?id=394>

Special Consideration / Late Penalties

Unless a Special Consideration request has been submitted and approved, **a 5% penalty (of the total possible mark) will be applied each day to late submissions, up until the 7th calendar day (including weekends). After the 7th day, a mark of '0' (zero) will be awarded even if the assessment is submitted.** Submission time for all written assessments is set at 11.55pm. A 1-hour grace period is provided to students who experience a technical issue.

Important to note:

Late submission of time sensitive tasks (such as tests/exams, performance assessments/presentations, scheduled practical assessments/labs) will be addressed by the unit convenor in a Special consideration application.

Students should not request an informal arrangement from their tutor, lecturer or Unit Convenor

(or equivalent).

Where an application for Special Consideration is approved and the outcome is an extension to the due date of a task, submissions that are received after the new due date will be subject to late penalties that are calculated from the new due date. This only applies where the outcome is an extension to the due date – see the [Special Consideration Policy](#) for a schedule of all possible outcomes.

A Special Consideration outcome may result in a new question or topic.

Applications must be made via [Service Connect](#).

University Policy on Grading

Assignments will be awarded grades ranging from HD to F according to guidelines set out in the [University's Grading System](#) and [University Assessment Policy](#).

To attain a pass or higher grade in Professional Experience a student must obtain a satisfactory in both the Professional Experience component and a pass or higher grade in the academic component. For Professional Experience units the Professional Experience Evaluation Report is marked as Satisfactory or Unsatisfactory. The Macquarie Teaching Performance Assessment (MQTPA - in final WIL/ PEx units) is marked as Not met, Met or Exceeds.

Results

Results shown in iLearn, or released directly by your Unit Convenor, are not confirmed because 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 [Service Connect](#).

Withdrawing from this unit

If you are considering withdrawing from this unit, please seek academic advice via [Service Connect](#) before doing so as this unit may be a co-requisite or prerequisite for units in the following sessions and may impact your course progression.

Assessment Tasks

Name	Weighting	Hurdle	Due	Groupwork/Individual	Short Extension	AI Approach
Viva Voce	50%	No	Exam period	Individual	No	Observed
Essay	50%	No	13/09/2026	Individual	Yes	Open

Viva Voce

Assessment Type ¹: Examination

Indicative Time on Task ²: 39 hours

Due: **Exam period**

Weighting: **50%**

Groupwork/Individual: Individual

Short extension ³: No

AI Approach: Observed

Viva voce assessing breadth and application of content across the unit

On successful completion you will be able to:

- Understand cutting edge theories and research in the learning sciences.
- Integrate models of cognition and learning with educational and disciplinary goals.
- Apply learning science phenomena to specific ages and disciplines.

Essay

Assessment Type ¹: Written Submission

Indicative Time on Task ²: 39 hours

Due: **13/09/2026**

Weighting: **50%**

Groupwork/Individual: Individual

Short extension ³: Yes

AI Approach: Open

Essay task in which students will integrate and apply learning science phenomena to a specific educational context

On successful completion you will be able to:

- Understand cutting edge theories and research in the learning sciences.
- Integrate models of cognition and learning with educational and disciplinary goals.
- Apply learning science phenomena to specific ages and disciplines.
- Critically evaluate the role of learning sciences in educational practice and policy.

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
- [Academic Success](#) 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.

³ An automatic short extension is available for some assessments. Apply through the [Service Connect Portal](#).

Delivery and Resources

This unit has a full web presence through iLearn. Information for students about access to the online component of this unit is available at <https://ilearn.mq.edu.au/login/index.php>. You will need to enter your student username and password.

Please do NOT contact the Unit Convenor regarding iLearn technical help. Assistance is available from IT Helpdesk: via email onehelp@mq.edu.au or Ph: 9850 4357 or 1800 67 4357. On Campus: Ground floor at 18 Wally's Walk.

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/>

Academic Success

[Academic Success](#) provides resources to develop your English language proficiency, academic writing, and communication skills.

- [Ask a Study Coach](#)
- [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 <https://students.mq.edu.au/support/technology/service-desk>.

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.

School of Education Procedures

In addition, the following policies and procedures for the Macquarie School of Education apply to this unit.

Communication

It is the student's responsibility to check all electronic communication on a weekly basis. Communication may occur via:

Official MQ Student Email Address

The Dialogue function on iLearn

Other iLearn communication functions

Attendance and Participation

See the University timetable for information about when classes begin in this unit. [Creating your timetable - Enrolling | Macquarie University, Sydney \(mq.edu.au\)](#). Students are required to attend the tutorial in which they are enrolled. Any changes to tutorial enrolments must be completed officially through e-Student. Please do not contact the unit convenor to request a change.

Infrequent Attendance Students

Information about the dates of the on-campus sessions can be found in the university timetable. [Creating your timetable - Enrolling | Macquarie University, Sydney \(mq.edu.au\)](#)

The on-campus sessions are essential to student engagement and learning and attendance is expected.

Prior to the on-campus sessions, students should have read the prescribed readings and listened to the lectures, summarise the main points, and make notes of the key terms and definitions. Prepare any discussion questions of your own that you wish to share.

Please make effective use of the online component of the unit and access iLearn regularly. Keep up to date with listening to the lectures on a weekly basis.

Further details and any updates about times and locations will be posted on iLearn as an Announcement during first half of the semester.

Unit information based on version 2026.05 of the [Handbook](#)