



EDST8650

Design of Technology-Enhanced Learning

Session 2, In person-scheduled-weekday, North Ryde 2023

Macquarie School of Education

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General Information

Unit convenor and teaching staff

Convenor Lecturer

Matt Bower

matt.bower@mq.edu.au

Contact via email

Building 29WW Room 238

By appointment

Credit points

10

Prerequisites

Admission to MEd or GradCertEdS or MEdLead or MHEd or GradCertHEd or MEChild or GradCertEChild or MTeach(0-5) or GradCertClinEdSim or MIndigenousEd or GradDipIndigenousEd or GradDipChildLit or MChildLit or MTeach(Prim) or MTeach(Sec)

Corequisites

Co-badged status

Unit description

This unit explores design, implementation and evaluation issues relating to the use of technology in education. It investigates how current and emerging technologies may be used to develop learners' capabilities such as critical thinking, creative thinking, problem solving, and collaborative skills. It provides opportunities to consider theory in relation to practice and encourages experimentation as well as reflection upon pedagogical approaches.

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: Integrate contemporary technologies effectively into professional teaching practices.

ULO2: Analyse a range of contemporary technologies and critically evaluate their potentials for application to specific and complex educational contexts.

ULO3: Develop technology-enhanced learning designs based on appropriate theoretical

frameworks and analysis of contemporary technology capabilities.

ULO5: Critically examine how digital technologies impact on our social, cultural, professional and educational lives based on appropriate sources of contemporary evidence.

ULO4: Critically evaluate and justify technology selection and design decisions for complex contexts with reference to current scholarly commentary, research and theory relating to educational technology usage.

ULO6: Model positive attitudes and social behaviours relating to the integration of technology within teaching and learning, including effective participation in discursive processes.

General Assessment Information

- Students should be aware of and apply the University policy on academic honesty (see: <https://policies.mq.edu.au/document/view.php?id=3>)
- Unless a Special Consideration (see: <https://students.mq.edu.au/study/assessment-exams/special-consideration>) request has been submitted and approved, a 5% penalty (of the total possible mark) will be applied each day a written assessment is not submitted, up until the 7th 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. This late penalty will apply to non-timed sensitive assessment (incl essays, reports, posters, portfolios, journals, recordings etc).
- Late submission of time sensitive tasks (such as tests/exams, performance assessments/presentations, scheduled practical assessments/labs etc) will only be addressed by the unit convenor in a Special consideration application. Special Consideration outcome may result in a new question or topic.
- Please format assessments using 12-point font and 1.5 spacing.
- All assessments are submitted electronically. Turnitin plagiarism detection software is used to check all written assessments.
- 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.
- Students should carefully 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 in error.

- Word limits are strictly applied. Work above the word limit will not be marked.
- All assessments are marked using a clear marking scheme or a rubric.
- Marking of all assessments is moderated by the Unit Convenor.
- Applications for extensions must be made via AskMQ (<https://ask.mq.edu.au/>).
- 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 make contact with the unit convenor.

University policy on grading

Criteria for awarding grades for assessment tasks

Assignments will be awarded grades ranging from HD to F according to guidelines set out in the University's Grading Policy. The following descriptive criteria are included for your information.

Descriptive Criteria for awarding grades in the unit

In order to meet the unit outcomes and successfully pass this unit, students must make a genuine attempt at all assessment tasks. Where any submitted assessment task is considered to be unsatisfactory in this regard, the highest possible final grade that can be awarded for the unit will be 45.

Students will be awarded grades ranging from HD to F according to guidelines set out in the policy: <https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policies/assessment-in-effect-from-session-2-2016>

The following generic grade descriptors provide university-wide standards for awarding final grades.

Grade	Descriptor
HD (High Distinction)	Provides consistent evidence of deep and critical understanding in relation to the learning outcomes. There is substantial originality and insight in identifying, generating and communicating competing arguments, perspectives or problem solving approaches; critical evaluation of problems, their solutions and their implications; creativity in application as appropriate to the discipline.

D (Distinction)	Provides evidence of integration and evaluation of critical ideas, principles and theories, distinctive insight and ability in applying relevant skills and concepts in relation to learning outcomes. There is demonstration of frequent originality in defining and analysing issues or problems and providing solutions; and the use of means of communication appropriate to the discipline and the audience.
Cr (Credit)	Provides evidence of learning that goes beyond replication of content knowledge or skills relevant to the learning outcomes. There is demonstration of substantial understanding of fundamental concepts in the field of study and the ability to apply these concepts in a variety of contexts; convincing argumentation with appropriate coherent justification; communication of ideas fluently and clearly in terms of the conventions of the discipline.
P (Pass).	Provides sufficient evidence of the achievement of learning outcomes. There is demonstration of understanding and application of fundamental concepts of the field of study; routine argumentation with acceptable justification; communication of information and ideas adequately in terms of the conventions of the discipline. The learning attainment is considered satisfactory or adequate or competent or capable in relation to the specified outcomes
F (Fail)	Does not provide evidence of attainment of learning outcomes. There is missing or partial or superficial or faulty understanding and application of the fundamental concepts in the field of study; missing, undeveloped, inappropriate or confusing argumentation; incomplete, confusing or lacking communication of ideas in ways that give little attention to the conventions of the discipline.

Note: If you fail a unit with a professional experience component, the fail grade will be on your transcript irrespective of the timing of the placement.

Withdrawing from this unit

If you are considering withdrawing from this unit, please seek academic advice via <https://ask.mq.edu.au> before doing so as this unit may be a co-requisite or prerequisite for units in the following sessions and may impact on your progression through the degree.

Results

Results shown in iLearn, 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 <https://ask.mq.edu.au>.

Use of Resources and Assistive Technologies

Ancillary resources and assistive technologies (such as generative Artificial Intelligence) may be used as a starting point for ideas. However, all content that is submitted must be the student's own work. Any use of ancillary resources such as generative Artificial Intelligence must be appropriately credited, for instance, by providing an acknowledgement statement at the end of an assignment or by formally referencing contributions. Use of ancillary resources and assistive technologies that are not appropriately credited may be considered as academic misconduct.

Assessment Tasks

Name	Weighting	Hurdle	Due
Discussion	25%	No	fortnightly posts, final post due 11:55PM Monday 9th October
ePortfolio	25%	No	fortnightly posts, final post due 11:55PM Mon 6th Nov
Learning Technology Module	50%	No	11:55PM Monday 23rd October

Discussion

Assessment Type ¹: Reflective Writing

Indicative Time on Task ²: 25 hours

Due: **fortnightly posts, final post due 11:55PM Monday 9th October**

Weighting: **25%**

Students will critically engage in discussion topics relevant to the unit, making a 300 word post each fortnight across ten weeks. See the unit website for further details including the assessment rubric.

On successful completion you will be able to:

- Integrate contemporary technologies effectively into professional teaching practices.
- Analyse a range of contemporary technologies and critically evaluate their potentials for application to specific and complex educational contexts.
- Critically examine how digital technologies impact on our social, cultural, professional and educational lives based on appropriate sources of contemporary evidence.
- Model positive attitudes and social behaviours relating to the integration of technology within teaching and learning, including effective participation in discursive processes.

ePortfolio

Assessment Type ¹: Portfolio

Indicative Time on Task ²: 25 hours

Due: **fortnightly posts, final post due 11:55PM Mon 6th Nov**

Weighting: **25%**

You will keep an e-portfolio of your learning in the form of posts in a blog to reflect on and apply the technologies and pedagogies discussed in the unit. The fortnightly posts should each be approximately 300 words (five in total). See the unit website for further details including the assessment rubric.

On successful completion you will be able to:

- Integrate contemporary technologies effectively into professional teaching practices.
- Analyse a range of contemporary technologies and critically evaluate their potentials for application to specific and complex educational contexts.
- Develop technology-enhanced learning designs based on appropriate theoretical frameworks and analysis of contemporary technology capabilities.
- Critically examine how digital technologies impact on our social, cultural, professional and educational lives based on appropriate sources of contemporary evidence.
- Critically evaluate and justify technology selection and design decisions for complex contexts with reference to current scholarly commentary, research and theory relating to educational technology usage.
- Model positive attitudes and social behaviours relating to the integration of technology within teaching and learning, including effective participation in discursive processes.

Learning Technology Module

Assessment Type ¹: Design Task

Indicative Time on Task ²: 50 hours

Due: **11:55PM Monday 23rd October**

Weighting: **50%**

You will design and create a technology-enhanced learning module that could be used in your working context. While there is no strict constraint on the scope of the module, as a guide it should be able to be completed in approximately three 1 hour lessons. The module should help the targeted learners achieve pre-defined syllabus outcomes (for instance from a NESA or Australian Curriculum syllabus document) and demonstrate the technology-enhanced learning design concepts covered in the unit. To complement this activity, an 800 word scholarly justification for the pedagogical design of the project will be submitted. See the unit website for further details including the assessment rubric.

On successful completion you will be able to:

- Integrate contemporary technologies effectively into professional teaching practices.

- Analyse a range of contemporary technologies and critically evaluate their potentials for application to specific and complex educational contexts.
- Develop technology-enhanced learning designs based on appropriate theoretical frameworks and analysis of contemporary technology capabilities.
- Critically evaluate and justify technology selection and design decisions for complex contexts with reference to current scholarly commentary, research and theory relating to educational technology usage.

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

Unit Organisation

This is a ten credit point unit containing 10 topics / weeks of classes. See the Unit Schedule below for the timing of topics. Each topic involves readings, a webinar, as well as forum and ePortfolio posts.

Webinar

- The webinar will occur on Monday 4pm-5pm for each week of topics. Offered in hybrid mode either Building 01CC Room 215 or online (see unit website for Zoom webinar link).

Required Reading

The required text for this unit is "Design of Technology-Enhanced Learning - Integrating Research and Practice" by Matt Bower.

e-Book version

A digital copy of the book should be available from <http://ebooks.com> for around \$AU 50, which is about a 65% discount. Simply go to <https://www.ebooks.com/95840983/design-of-technology-enhanced-learning/bower-matt/> and use the discount code provided at the top section of the unit website on checkout to receive the discount. This offer has been setup especially for EDST8304 this session so please don't pass it onto anyone because the number of people who can use this discount is capped. The digital version of the book has several advantages including being searchable, colour images, and live hyperlinks to web references.

Hardcopy/paperback version

Those who prefer a hardcopy version of the book can purchase it online at <https://www.booktopia.com.au/design-of-technology-enhanced-learning-matt-bower/book/9781838679200.html> .

Hardcover and paperback versions are available from other vendors, so it can be worthwhile to shop around online.

Library version

The text is available for periodical borrowing from the Library. The number of digital and hardcopy versions available may be capped, the library versions cannot be annotated, and there is a limit on the duration for which you borrow the digital and hardcopy versions from the library. In previous sessions students have been caught without access during peak periods, so it is recommended that you purchase either an e-Book or hardcopy version.

Copyright Issues

Copyright rules apply to the use of materials taken from other sources. There are images you can use in the development of your assignments without needing to obtain copyright permission. Links to sites that supply copyright free images will be suggested in your tutorials, or you can search for Creative Commons resources yourselves. It is essential that you adhere to copyright requirements. For guidance on what you can use and how you can use it, see <https://smartcopying.edu.au>.

Technology Use and Requirements

Accessing and using the Unit Website

The EDST8650 unit website is available from the Macquarie University iLearn system available at: <http://ilearn.mq.edu.au>.

Students will need regular access to a computer and the Internet to complete this unit. Weekly access to iLearn is compulsory for all students. Important assessment information will be posted on iLearn, as will other relevant unit notices and materials. Please check the iLearn unit website regularly.

Lecture recordings

Weekly lectures will be recorded via Zoom, and made available within 24 hours via the unit website.

Training Support

In order to successfully complete EDST8650, students need to ensure they have a reasonable level of digital literacy. For instance, students should be able to navigate around a desktop computer to open and edit Word documents and use a web-browser to search for information. If you feel uncertain about your competency levels it is your responsibility to undertake training to acquire or improve these skills as soon as possible as they will be assumed in the tutorials.

Library Training

The library offers a range of face-to-face and online workshops to support the development of technological skills. For more details refer to the Macquarie University library website

(http://www.mq.edu.au/on_campus/library/) under 'Training'.

General IT Support and Troubleshooting

For support with access to wireless networks and other general technology matters, please contact the Macquarie University Library Student IT Help Desk (Phone: 9850 4357 or 1800 67 4357; Email: onehelp@mq.edu.au).

Unit Schedule

Week Commencing	Topic
Week 1 (24/07/23)	Introduction to Technologies in Education Technology as an educational imperative Student safety, privacy, risk The Technology Pedagogy and Content Model and its implications
Week 2 (31/07/23)	Pedagogies of Technology-Enhanced Learning
Week 3 (07/08/23)	Technology Affordances and Multimedia Learning Effects
Week 4 (14/08/23)	Representing and Sharing Content Using Technology
Week 5 (21/08/23)	Design Thinking and Learning Design
Week 6 (28/08/23)	Design of Web-Enhanced Learning
Week 7 (04/09/23)	Designing for Learning using generative Artificial Intelligence
Mid-Session Break (11/09/23)	<i>RECESS (no webinar)</i>
Mid-Session Break (18/09/23)	<i>RECESS (no webinar)</i>
Week 8 (25/09/23)	Design of Mobile Learning

Week 9 (02/10/23)	Designing for Learning using Virtual Worlds
Week 10 (09/10/23)	<i>(no webinar - work on Learning Technology Module)</i>
Week 11 (16/10/23)	<i>(no webinar - work on Learning Technology Module)</i>
Week 12 (23/10/23)	<i>(no webinar - work on Learning Technology Module)</i>
Week 13 (30/10/23)	Abstracting Technology-Enhanced Learning Design Principles Conclusions and Future Directions for Educational Technology

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 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.

SCHOOL OF EDUCATION PROCEDURES

In addition, the following policies and procedures of the School of Education are applicable in this unit.

Unit Expectations

- Students are expected to read weekly readings before completing tasks and attending tutorials
- Students are expected to listen/attend weekly lectures before completing tasks and attending tutorials

Note: It is not the responsibility of unit staff to contact students who have failed to submit assignments. If you have any missing items of assessment, it is your responsibility to make contact with the unit convenor.

Electronic Communication

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

- Official *MQ Student Email* Address
- Other iLearn communication functions

Changes from Previous Offering

The content from the previous offering has been updated to reflect advances in educational technology research and practice.

The Artificial Intelligence topic replaces the Social Media topic.

Students are expected to make personal, reflective and original contributions on assessment tasks - submission of generic content that could be generated by Artificial Intelligence will not be sufficient to pass this unit.

Edit

5Rs Framework

The 5Rs Framework, developed by the School of Education at Macquarie University, is embedded throughout your course. Your use of the 5Rs Framework will help you develop the capabilities that will make your teaching career more sustainable and fulfilling.

In this unit, you will learn using the 5Rs framework in the following important ways:

- **Resilience:** Apply strategies to rise above study, work and life pressures to maintain holistic health and sense of coherence.
- **Reflexive:** Consider how your thoughts and actions within your study and teaching environments can lead to maximum positive impact.
- **Responsive:** Design learning environments that cater to the individual needs and interests of your students.
- **Ready to learn:** Identify areas where self-development is required and pursue learning in those areas of need.
- **Research engaged:** Source relevant learning design research and critically apply it to create evidence-based technology-enhanced learning modules.