



**UNSW**  
A U S T R A L I A

Arts & Social  
Sciences

School of Education

EDST5105

Design and Evaluation of ICT-based learning

Semester 1, 2017

## Contents

1. LOCATION.....	2
2. STAFF CONTACT DETAILS.....	2
3. COURSE DETAILS.....	2
<i>Summary of Course</i> .....	2
<i>Important Information</i> .....	3
<i>Student Learning Outcomes</i> .....	3
<i>Program Learning Outcomes</i> .....	3
4. RATIONALE FOR THE INCLUSION OF CONTENT AND TEACHING APPROACH.....	4
5. TEACHING STRATEGIES .....	4
6. COURSE CONTENT AND STRUCTURE .....	4
7. ASSESSMENT .....	6
8. RESOURCE.....	11

### **IMPORTANT:**

For student policies and procedures relating to assessment, attendance and student support, please see website, <https://education.arts.unsw.edu.au/students/courses/course-outlines/>

**The School of Education acknowledges the Bedegal and Gadigal people as the traditional custodians of the lands upon which we learn and teach.**

## 1. LOCATION

Faculty of Arts and Social Sciences  
School of Education  
EDST5105 Design and Evaluation of ICT-based Learning (6 units of credit)  
Semester 1, 2017

## 2. STAFF CONTACT DETAILS

Course Coordinator: Sandra Phillips  
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Availability: Please email to arrange an appointment

## 3. COURSE DETAILS

<b>Course Name</b>	Design and Evaluation of ICT-based Learning
<b>Credit Points</b>	6 units of credit (uoc)
<b>Workload</b>	Includes 150 hours including class contact hours, readings, class preparation, assessment, follow up activities, etc.
<b>Schedule</b>	11-12 March (Saturday-Sunday week 2) 6-7 May (Saturday-Sunday week 9) 09:00-16:00 Morven Brown G4

### *Summary of Course*

The course introduces students to the theoretical foundations and organisational issues of educational technologies and e-learning. It aims to develop students' skills in conceptualising and designing effective and engaging ICT-based learning in technology-enhanced environments. The course covers principles of evaluation of educational devices and software, mobile technology applications and web-based resources. Students will be expected to show a critical understanding of the relationships between context, purpose and technology through developing e-learning resources that incorporate explicit design principles and media selection rationales as well as innovative instructional techniques into teaching and learning modules.

### **The main ways in which the course has changed since last time as a result of student feedback are:**

- *A better understanding of their assessment requirements. Digital Portfolio tasks are often new to students, using some of the elements of this as samples for evaluation should not only present models and samples of the tasks but get students to focus on the elements as part of the assessment as, for and of learning.*
- *Assessment 2 has been changed to not being student assessed and or presented. This was not particularly successful and the variation of student expectations made it potentially unfair. This had been retained from the previous lecturer's assessment last year to ensure continuity. As the course is short devoting 3 hours to student presentation was not the best use of the time.*

### Important Information

**Assessment:** Students must pass ALL assignments in order to pass the course. Only by passing all assignments can the Graduate Attributes be achieved.

**Attendance:** Students are expected to give priority to university study commitments. Unless specific and formal permission has been granted, failure to attend 80% of classes in a course may result in failure

### Student Learning Outcomes

Outcome		Assessment/s
1	Demonstrate understanding of the key principles and theories of ICT-based learning and to analyse these in relation to their own teaching contexts	1, 3
2	Evaluate a range of educational technology resources and assess their use in a variety of contexts	2, 3
3	Apply principles and learning theories of e-learning to plan and design e-learning activities that align with curriculum structures (frameworks and assessment) of their teaching/learning contexts (or for those not currently teaching, for an intended audience within their professional contexts)	2, 3
4	Locate, evaluate and use technology resources for ongoing self-directed professional development and lifelong learning	2, 3

### Program Learning Outcomes

Standard		Assessment/s
1	<b>Advanced disciplinary knowledge and practices</b> Demonstrate an advanced understanding of the field of education as it relates to their specialist area of study, and the ability to synthesize and apply disciplinary principles and practices to new or complex environments.	2, 3
2	<b>Enquiry-based learning</b> Demonstrate an in-depth understanding of research-based learning and the ability to plan, analyse, present implement and evaluate complex activities that contribute to advanced professional practice and/or intellectual scholarship in education	1, 2, 3
3	<b>Cognitive skills and critical thinking</b> Demonstrate advanced critical thinking and problem solving skills	1, 2, 3
4	<b>Communication, adaptive and interactional skills</b> Communicate effectively to a range of audiences, and be capable of independent and collaborative enquiry and team-based leadership	1, 2, 3
5	<b>Global outlook</b> Demonstrate an understanding of international perspectives relevant to the educational field	1, 3
6	<b>Ethics</b> Demonstrate an advanced capacity to recognise and negotiate the complex and often contested values and ethical practices that underlie education	2, 3

#### 4. RATIONALE FOR THE INCLUSION OF CONTENT AND TEACHING APPROACH

Designing and evaluating ICT-based learning materials require an understanding of how people learn. Students will be exposed to learning theories and principles applicable to learning in technology-enhanced environments. By analysing a range of ICT resources, students will be able to apply principles of instructional design to evaluate their effectiveness. Students will apply their understanding developed in the course to plan and design ICT-based resources that are pedagogically sound and applicable in their teaching contexts.

#### 5. TEACHING STRATEGIES

A student-centred, seminar-based approach will form the basis of the course. The teaching strategies used during the course will include:

- interactive lectures to provide explicit instructions about the theoretical aspects of selecting and evaluation instructional technology and demonstrations of different approaches to integrating technology into learning and teaching
- hands-on approach where students explore resources for instructional design, research and contemporary learning.
- discussions in small groups and whole class to share the diversity of thinking and best practice.
- opportunities that encourage students to reflect critically and communicate on issues discussed

#### 6. COURSE CONTENT AND STRUCTURE

Date		Lecture Topic
<b>Saturday 11 March</b>	9:00am – 12:00pm	Introduction. Basic concepts of educational technology  Students: habits, characteristics: and learning with digital technology  Learning frameworks and digital literacy
	1:00pm – 4:00pm	Affordances of digital technologies  Setting up of the Digital portfolio for all activities undertaken throughout the course.
<b>Sunday 12 March</b>	9:00am – 12:00pm	Exploring eLearning tools and online spaces to support contemporary learning & teaching  Evaluating digital resources  Collaboration task around assessment task 2. Students work in groups to select the digital tasks they are going to assess. They analyse the tasks and the learning, connect it to curriculum learning outcomes and design the appropriate assessment for each task inc rubric, assessment tasks, questionnaires for, as
	1:00 pm – 4:00pm	and of learning using digital tools and presenting it within their digital portfolio.

<b>Saturday 6 May</b>	9:00 am – 12:00pm	Trends in technology : Flipped classroom, 1 - to -1 and BYOD Teachers: Instructional design of technology-based learning
	1:00 pm – 4:00pm	Assessing technology- based learning
<b>Sunday 7 May</b>	9:00 am – 12:00pm	Students will work on the design and development of their digital learning tasks for their students including a Webquest, digital story for a flipped classroom and a questionnaire for their students.
	1:00 pm – 4:00pm	They will also reflect on their assessment task one submission and make modifications based on feedback and anything they have learned from the readings and the course itself.

## 7. ASSESSMENT

Assessment Task	Length	Weight	Task (~hrs)	Student Learning Outcomes Assessed	Program Learning Outcomes Assessed	Due Date
1. Pre-course task: Integrating digital technology into planning for contemporary learning.	Equivalent to approx 1200 words	20%	~15 hrs	1	2, 3, 4, 5	Friday 10 <sup>th</sup> March 2017
2. Instructional technology resources and designed evaluation	Equivalent to approx. 900 words	20%	~12 hrs	2, 3, 4	1, 2, 3, 4, 6	Friday 31 <sup>st</sup> March 2017
3. Design and develop a digital portfolio for an ICT-based learning module	Equivalent to approx. 3900 words	60%	~60 hrs	1, 2, 3, 4	1, 2, 3, 4, 5, 6	Friday 26 <sup>th</sup> May 2017

### Task 1. Pre-course task: Integrating digital technology in education

This **1200 word equivalent** assignment requires you to:

1. read the literature about the current views and status of digital technology in education. Some papers will be recommended for your reading in the shared Google folder (link inside Moodle) but it is expected that you research further for information that will help you understand more about the area(s) that you are focusing on. Also consider the tools presented here as voted by teachers as their top education tools. <http://c4lpt.co.uk/top100tools/>
2. prepare a planned unit of work in your area of teaching which uses digital technologies to deepen the learning of students (consider the impact of 1 - to - 1 access) with a description of how the inclusion of activities and resources improves learning opportunities for students. Also consider what you are going to get students to do with the technology to deepen their learning.
3. reflect on your teaching or current work and describe how you are using digital technology in your teaching or work that relates to education. Listed below are some guiding points to help you:
  - the context of your teaching situation or the kind of job that you are/will be doing that is connected to education
  - the characteristics of the learners that you are working with, or are preparing to work with
  - what is digital literacy, its role in your use of technology and in education generally, and why it is important
  - what your thoughts are on the requirements to use digital technology effectively in your teaching and the students' learning

## **Task 2. Presentation task: Instructional technology resources evaluation**

This assignment is a group task and requires the group to:

- demonstrate the ability to apply theory-based evaluation knowledge and skills to technology resources in an area of teaching interest.
- analyse and develop assessment criteria for two elements of the digital portfolio. (Several samples will be provided and students can choose from those provided OR choose instructional technology resources in their discipline area and undertake an evaluation of their effectiveness in promoting learning.
- provide a framework upon which your evaluation is based – it is expected that a synthesis of your understanding of theories and principles of ICT-based learning to analyse these resources is demonstrated including consideration around assessment for, as and of learning.

## **Task 3. Design and develop a website for an ICT- based learning module**

This assignment requires you to demonstrate your:

- ability to use theories and principles studied and
- understanding of the multiple ways of using instructional technology to design ICT-based curriculum, justifying why you think your design is effective. Show how the resource/module fits in with curriculum statements, frameworks and assessment structures of the teaching and learning context. Examples of items to include in your module are
  - evidence of acknowledgement of your learners and their prior learning
  - at least 4 learner activities that use different eLearning strategies and eLearning tools including:
    - setting up the digital portfolio within an Edublog
    - an inquiry designed Webquest for your students
    - a digital story with planning
    - at least one assessment task that is computer-based modified to demonstrate variation required when assessing for, as and of learning.
    - 4 blog posts summarising readings.
  - accompanying your module will be a description of any modifications made to your initial unit of work (assessment task one) considering changes made following the learning and reflections made throughout the course.

All students are required to submit assessments on Turnitin via Moodle. The format of submission for the digital portfolio is the URL included the student's name, email address and student number (requires 20 words to allow for submission). This must be submitted via Turnitin. Each assessment result will be emailed to students' UNSW email accounts.



UNSW SCHOOL OF EDUCATION  
 FEEDBACK SHEET  
 EDST5105 DESIGN AND EVALUATION OF ICT-BASED LEARNING

Student Name:

Student No.:

Assessment Task: **Task 1. Pre-course task**

SPECIFIC CRITERIA	(-) <span style="font-size: 2em;">→</span> (+)				
<b>Understanding of the tasks or issue and the key concepts involved</b> <ul style="list-style-type: none"> <li>Evidence that demonstrates the different components of the task are addressed (2)</li> </ul>					
<b>Depth of understanding of theories in response to the task</b> Quality of the ideas and authentic use of the technologies to enhance student learning (6) <ul style="list-style-type: none"> <li>Relevance of the technologies included in the planned curriculum unit</li> <li>Applications for students which enabled them to create , collaborate, think and/or communicate authentically.</li> </ul>					
<b>Familiarity with and relevance of professional and/or research literature used to support response</b> <ul style="list-style-type: none"> <li>Quality of the reflection and its relationship to the literature (6)</li> </ul>					
<b>Structure and organisation of response</b> <ul style="list-style-type: none"> <li>Coherence (i.e. structure and organisation) of the planned unit produced (2)</li> </ul>					
<b>Presentation of response according to appropriate academic and linguistic conventions</b> <ul style="list-style-type: none"> <li>Clarity in communicating the requirement of the task (1)</li> <li>Clarity and appropriateness of sentence structure and vocabulary in report (1)</li> <li>Correct referencing (2)</li> </ul>					
<b>GENERAL COMMENTS/RECOMMENDATIONS FOR NEXT TIME</b>					

**Lecturer**

**Date**

**Recommended:**      /20      (FL PS CR DN HD)

**Weighting:**      20%

NB: The ticks in the various boxes are designed to provide feedback to students; they are not given equal weight in determining the recommended grade. Depending on the nature of the assessment task, lecturers may also contextualize and/or amend these specific criteria. The recommended grade is tentative only, subject to standardisation processes and approval by the School of Education Learning and Teaching Committee.

UNSW SCHOOL OF EDUCATION  
 FEEDBACK SHEET  
 EDST5105 DESIGN AND EVALUATION OF ICT-BASED LEARNING

Student Name:

Student No.:

Assessment Task:

**Task 2. Instructional technology resources evaluation**

SPECIFIC CRITERIA	(-) <span style="font-size: 2em;">→</span> (+)				
<b>Understanding of the question or issue and the key concepts involved</b> <ul style="list-style-type: none"> <li>• Identifying appropriate assessment methods to accompany the technology enabled learning.</li> <li>• Describe what the assessment is designed to do.</li> </ul>					
<b>Depth of analysis and/or critique in response to the task</b> <ul style="list-style-type: none"> <li>• Demonstrates full understanding of the curriculum and learning potential within each of the learning tasks.</li> <li>• Is able to outline detailed criteria for assessment of the different tasks.</li> </ul>					
<b>Familiarity with and relevance of professional and/or research literature used to support response</b> <ul style="list-style-type: none"> <li>• Is able to identify the learning and appropriate assessment and demonstrate examples that assess for, as and of learning describing how the assessment chosen evaluates the learning.</li> <li>• Is able to reference examples of the learning derived from the readings undertaken throughout the course.</li> </ul>					
<b>Structure and organisation of response</b> <ul style="list-style-type: none"> <li>• Presents at least one rubric with detailed descriptions of each task they have defined for their students</li> <li>• Developed a questionnaire for students demonstrating the modifications required to assess for, as and of learning.</li> </ul>					
<b>Presentation of response according to appropriate academic and linguistic conventions</b> <ul style="list-style-type: none"> <li>• Is written in a way that their students would fully understand the assessment expectations required of them. (Clarity in communication)</li> <li>• Clarity and appropriateness of sentence structure and vocabulary in report</li> </ul>					
<b>GENERAL COMMENTS/RECOMMENDATIONS FOR NEXT TIME</b>					

Lecturer

Date

Recommended: /20 (FL PS CR DN HD)

Weighting: 20%

UNSW SCHOOL OF EDUCATION  
FEEDBACK SHEET  
EDST5105 DESIGN AND EVALUATION OF ICT-BASED LEARNING

Student Name:

Student No.:

Assessment Task: **Task 3. Design and develop a digital portfolio for an ICT- based learning module**

SPECIFIC CRITERIA	(-) <span style="font-size: 2em;">→</span> (+)				
<b>Understanding of the question or issue and the key concepts involved</b> <ul style="list-style-type: none"> <li>• Identifying issues and key concepts around the structure of online layout and design within the Edublog</li> <li>• Clarity and relevance of the activities</li> <li>• Authenticity of task and engagement level</li> </ul>					
<b>Depth of analysis and/or critique in response to the task</b> <ul style="list-style-type: none"> <li>• Use theory-based principles to plan and design the eLearning sequences in the module</li> <li>• Including all elements of the learning design               <ul style="list-style-type: none"> <li>○ an inquiry designed Webquest for your students</li> <li>○ a digital story with planning</li> </ul> </li> </ul>					
<b>Familiarity with and relevance of professional and/or research literature used to support response</b> <ul style="list-style-type: none"> <li>• Appropriate selection of resources and design of assessment task that is modified to demonstrate variation required when assessing for, as and of learning.</li> <li>• Modifications made to initial planned unit of work with descriptions to why modifications were made.</li> </ul>					
<b>Structure and organisation of response</b> <ul style="list-style-type: none"> <li>• Evidence of preparation</li> <li>• Competency in use of eLearning tools (e.g. layout, navigation) and in the creation of the website</li> <li>• setting up the digital portfolio within an Edublog</li> </ul>					
<b>Presentation of response according to appropriate academic and linguistic conventions</b> <ul style="list-style-type: none"> <li>• Clarity in communication</li> <li>• Clarity and appropriateness of sentence structure and vocabulary in report</li> <li>• 4 blog posts summarising readings inc. correct referencing</li> </ul>					
<b>GENERAL COMMENTS/RECOMMENDATIONS FOR NEXT TIME</b>					

**Lecturer**

**Date**

**Recommended:        /20        (FL PS CR DN HD)**

**Weighting:        60%**

NB: The ticks in the various boxes are designed to provide feedback to students; they are not given equal weight in determining the recommended grade. Depending on the nature of the assessment task, lecturers may also contextualize and/or amend these specific criteria. **The recommended grade is tentative only, subject to standardisation processes and approval by the School of Education Learning and Teaching Committee.**

## 8. RESOURCE

### *Suggested Readings*

- Ng, Wan (2012) Can we teach digital natives digital literacy?
- Ryan, Josephine , Scott, Anne and Walsh, Maureen(2010) 'Pedagogy in the multimodal classroom: an analysis of the challenges and opportunities for teachers', *Teachers and Teaching*, 16: 4, 477 — 489
- The 2015 K-12 Edition Expert Panel, New Media Consortium (2015) NMC Horizon Report: 2015 K-12 Edition

### *Suggested viewing*

- [https://www.ted.com/talks/ken\\_robinson\\_changing\\_education\\_paradigms](https://www.ted.com/talks/ken_robinson_changing_education_paradigms)
- <https://www.commonsemmedia.org/videos/introduction-to-the-samr-model>