

# COURSE OUTLINE

# **EDU204** Teaching Technologies: Curriculum and Pedagogy

School: School of Education and Tertiary Access

2024 Semester 2

UniSC Sunshine Coast UniSC Moreton Bay UniSC Fraser Coast

BLENDED LEARNING Most of your course is on campus but you may be able to do some components of this course online.

Please go to usc.edu.au for up to date information on the teaching sessions and campuses where this course is usually offered.

# 1. What is this course about?

### 1.1. Description

This course introduces you to the Technologies discipline area and the integration of technology across the curriculum. You will learn from traditional, contemporary and emerging technologies. You will make connections between creativity, enterprise and technologies and develop learning contexts that are cross-curricular and related to real world needs and experiences. Connections will be made to frameworks that encourage higher-order thinking. You will design hands-on tasks which follow the design process, which are rich in contemporary and effective classroom practices.

## 1.2. How will this course be delivered?

ACTIVITY	HOURS	BEGINNING WEEK	FREQUENCY
BLENDED LEARNING			
<b>Learning materials</b> – You are required to engage and interact with asynchronous materials and activities accessed through Canvas modules, course readings and required texts.	2hrs	Week 1	9 times
<b>Tutorial/Workshop 1</b> – The tutorial requires on-campus engagement in hands-on activities using a range of technologies and materials to support the application of learning about the design process in Technologies education.	2hrs	Week 1	10 times

### 1.3. Course Topics

- The Australian Curriculum Technologies -Design and Technologies Curriculum
- · Technology and society
- Engineering principles and systems
- Food and fibre production and food specialisations
- Materials and technologies specialisations
- · Design solutions
- The Australian Curriculum Technologies -Digital Technologies
- · Digital systems
- · Representation of data
- Cyber safety and ethical issues
- · Digital communications
- Integrating technology into teaching and learning

# 2. What level is this course?

200 Level (Developing)

Building on and expanding the scope of introductory knowledge and skills, developing breadth or depth and applying knowledge and skills in a new context. May require pre-requisites where discipline specific introductory knowledge or skills is necessary. Normally, undertaken in the second or third full-time year of an undergraduate programs.

## 3. What is the unit value of this course?

12 units

# 4. How does this course contribute to my learning?

COURSE LEARNING OUTCOMES		GRADUATE QUALITIES MAPPING	PROFESSIONAL STANDARD MAPPING *	
On successful completion of this course, you should be able to		Completing these tasks successfully will contribute to you becoming	Australian Institute for Teaching and School Leadership	
1	Demonstrate implementation of effective learning within Design and Technologies for primary schools by evaluating learning theories, teaching frameworks, Australian Curriculum content, pedagogy and resources in a cross-curriculum capacity. Analyse and reflect on ethical and personal teaching knowledge and skills.	Knowledgeable Ethical	1.1, 1.2, 2.1, 2.2, 2.3, 2.5, 2.6, 3.4, 4.5, 7.1, 7.2	
2	Demonstrate implementation of effective learning within Digital Technologies for primary schools by evaluating learning theories, teaching frameworks, Australian Curriculum content, pedagogy and resources in a cross-curriculum capacity. Analyse and reflect on ethical and personal teaching knowledge and skills.	Knowledgeable Creative and critical thinker	1.1, 1.2, 2.1, 2.2, 2.3, 2.5, 2.6, 3.4, 4.5, 7.1, 7.2	
3	Implement teaching strategies and learning activities using technologies suitable for early childhood and primary school students that integrate literacy, numeracy, legislative, administrative and ethical considerations.	Knowledgeable Empowered	2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7	

<sup>\*</sup> Competencies by Professional Body

### CODE COMPETENCY

#### AUSTRALIAN INSTITUTE FOR TEACHING AND SCHOOL LEADERSHIP

- 1.1 Physical, social and intellectual development and characteristics of students: Demonstrate knowledge and understanding of physical, social and intellectual development and characteristics of students and how these may affect learning.
- 1.2 Understand how students learn: Demonstrate knowledge and understanding of research into how students learn and the implications for teaching.
- 2.1 Content and teaching strategies of the teaching area: Demonstrate knowledge and understanding of the concepts, substance and structure of the content and teaching strategies of the teaching area
- 2.2 Content selection and organisation: Organise content into an effective learning and teaching sequence.
- 2.3 Curriculum, assessment and reporting: Use curriculum, assessment and reporting knowledge to design learning sequences and lesson plans.
- 2.4 Understand and respect Aboriginal and Torres Strait Islander people to promote reconciliation between Indigenous and non-Indigenous Australians: Demonstrate broad knowledge of, understanding of and respect for Aboriginal and Torres Strait Islander histories, cultures and languages.
- 2.5 Literacy and numeracy strategies: Know and understand literacy and numeracy teaching strategies and their application in teaching areas.
- 2.6 Information and Communication Technology (ICT): Implement teaching strategies for using ICT to expand curriculum learning opportunities for students.
- 3.1 Establish challenging learning goals: Set learning goals that provide achievable challenges for students of varying abilities and characteristics.
- 3.2 Plan, structure and sequence learning programs: Plan lesson sequences using knowledge of student learning, content and effective teaching strategies.
- 3.3 Use teaching strategies: Include a range of teaching strategies.
- 3.4 Select and use resources: Demonstrate knowledge of a range of resources, including ICT, that engage students in their learning.
- 3.5 Use effective classroom communication: Demonstrate a range of verbal and non-verbal communication strategies to support student engagement
- 3.6 Evaluate and improve teaching programs: Demonstrate broad knowledge of strategies that can be used to evaluate teaching programs to improve student learning.
- 3.7 Engage parents/carers in the educative process: Describe a broad range of strategies for involving parents/carers in the educative process.
- 4.5 Use ICT safely, responsibly and ethically: Demonstrate an understanding of the relevant issues and the strategies available to support the safe, responsible and ethical use of ICT in learning and teaching.
- 7.1 Meet professional ethics and responsibilities: Understand and apply the key principles described in codes of ethics and conduct for the teaching profession.
- 7.2 Comply with legislative, administrative and organisational requirements: Understand the relevant legislative, administrative and organisational policies and processes required for teachers according to school stage.

# 5. Am I eligible to enrol in this course?

Refer to the UniSC Glossary of terms for definitions of "pre-requisites, co-requisites and anti-requisites".

5.1. Pre-requisites

Enrolled in Program ED304

5.2. Co-requisites

Not applicable

5.3. Anti-requisites

Not applicable

# 5.4. Specific assumed prior knowledge and skills (where applicable)

ED304 students (Bachelor of Primary Education) will have successfully completed minimum of 6 Education Courses, not including school placement courses.

# 6. How am I going to be assessed?

# 6.1. Grading Scale

Standard Grading (GRD)

High Distinction (HD), Distinction (DN), Credit (CR), Pass (PS), Fail (FL).

## 6.2. Details of early feedback on progress

Students will be provided academic progress feedback during the first third of the teaching semester. This feedback will be provided during the tutorials through group and individual discussion activities up to the delivery of the first assessment task.

### 6.3. Assessment tasks

DELIVERY MODE	TASK NO.	ASSESSMENT PRODUCT	INDIVIDUAL OR GROUP	WEIGHTING %	WHAT IS THE DURATION / LENGTH?	WHEN SHOULD I SUBMIT?	WHERE SHOULD I SUBMIT IT?
All	1	Quiz/zes	Individual	20%	A single quiz	Week 4	Online Test (Quiz)
All	2	Portfolio	Individual	40%	1500 words	Week 7	Online ePortfolio Submission
All	3	Written Piece	Group	40%	Sequence of 6 x lessons written on an approved unit or lesson plan template (approx 1000 words) and written rationale (500 words).	Week 10	Online Assignment Submission with plagiarism check

## All - Assessment Task 1: Technologies in the Curriculum Quiz

GOAL:	The goal of this task is to demonstrate knowledge and understanding of the main concepts in the Technologies curriculum and STEM education.					
PRODUCT:	Quiz/zes					
FORMAT:	This assessment task is due on Friday week 4 by 5pm. After completion of the week 1, 2, 3, and 4 online modules and attending the tutorials, you will complete the quiz to demonstrate knowledge and understanding of the main concepts in the Technologies curriculum and STEM education.					
CRITERIA:	No.	Learning Outcome assessed				
	Application of knowledge and understanding of the learning theories, teaching frameworks and Australian Curriculum content in Technologies education and the importance of developing skills for the future of work in primary school.	2				
	2 Application of knowledge of the concepts, structure and substance of the Australian Curriculum:Technologies and description of the structure and aims of the Digital Technologies subject in relation to primary schooling.	2				
	3 Implementation and application of understanding of STEM and description of strategies for curriculum integration in STEM programs in primary schooling contexts.	23				
GENERIC SKILLS:	Communication, Problem solving, Applying technologies					

# All - Assessment Task 2: Tutorial workbook

GOAL:	The goal of this task is to document the completion of design challenges and digital technologies hands-on tutorial activities.					
PRODUCT:	Portfolio					
FORMAT:	Using a digital workbook provided, you will build an e-portfolio which documents your understanding of Technologies curriculum and pedagogies. Each week in your folio (weeks 1-7) you will complete the tutorial activities and engage in reflection to demonstrate your developing knowledge of the Technologies content and pedagogies.  In week one you will need to submit your workbook so that ongoing formative feedback can be provided on your progress prior to the final submission date.					
CRITERIA:		Learning Outcome assessed				
	1 Reflection and analysis of own experiences and understandings of teaching technologies including using ICT safely, responsibly and ethically.	12				
	2 Application of knowledge of design and systems thinking and design processes via reflections on completed design challenges	1				
	3 Application of knowledge of the concepts, substance and structure of the Technologies subject areas.	12				
	4 Application of written communication skills and academic literacies including English expression grammar, spelling, punctuation. Reference current Technologies literature from credible sources to support statements using APA7 referencing conventions.	2				
GENERIC SKILLS:	Communication, Problem solving, Applying technologies, Information literacy					

### All - Assessment Task 3: Design challenge lesson sequence and rationale

GOAL:	The goal of this task is to demonstrate knowledge of the Australian Curriculum: Design and Technologies subject, and technological, pedagogical and content knowledge, through creation of a Design Challenge sequence of lessons for primary school students, based on the Design Process.					
PRODUCT:	Written Piece					
FORMAT:	This is a partnered task - you and your partner will be assigned a technologies topic and context for the design challenge.					
	You and your partner are to design and develop a written sequence of 6 x lessons, appropriate to a primary school-y level from Prep to Year 6 which aligns to the topic and context your group is assigned. The teaching sequence is to a from the Design and Technologies subject of the Australian Curriculum: Technologies and integrate with other curriculareas, including general capabilities. The sequence of lessons will use a problem-based learning approach whereber primary school-aged students collaboratively apply design and systems thinking and design processes to investigate ideas, generate and refine ideas, plan, produce and evaluate designed solutions for an identified authentic need. Consideration should be given to appropriateness and authenticity to the age group, collaboration between the studiesson sequence and appropriate alignment between the curriculum outcomes, lesson's objective(s) and the assessment(s).					
	You and your partner need to also write a rational for your Design Challenge sequence which justifies the choices you have made in the teaching sequence through analysis and references to academic sources.					
	As a partnered task, a Partner Role and Responsibilities form is to be completed that identifies the proportion of the assignment each person investigated and prepared. The Partner Role and Responsibilities through Canvas with your lesson sequence.					
CRITERIA:	No.	Learning Outcome assessed				
	Application of knowledge and understanding of the Technologies curriculum and integration with other learning areas.	12				
	2 Demonstration of alignment of curriculum, learning outcomes and assessment in the sequence of lessons.	12				
	3 Design an innovative design challenge for students in primary school with a design brief linked to solving a real-life problem using a problem-based learning approach and use of ICT safely, responsibly and ethically.	3				
	4 Implementation and explanation of age-appropriate content, timing, resources and pedagogies in a sequence of lessons in a design challenge.	3				
	Application of written communication skills and academic literacies including English expression grammar, spelling, punctuation. Reference current Technologies literature from credible sources to support statements using APA7 referencing conventions.	3				
GENERIC SKILLS:	Collaboration, Problem solving, Applying technologies					

# 7. Directed study hours

A 12-unit course will have total of 150 learning hours which will include directed study hours (including online if required), self-directed learning and completion of assessable tasks. Student workload is calculated at 12.5 learning hours per one unit.

# 8. What resources do I need to undertake this course?

Please note: Course information, including specific information of recommended readings, learning activities, resources, weekly readings, etc. are available on the course Canvas site—Please log in as soon as possible.

# 8.1. Prescribed text(s) or course reader

Please note that you need to have regular access to the resource(s) listed below. Resources may be required or recommended.

REQUIRED?	AUTHOR	YEAR	TITLE	EDITION	PUBLISHER
Required	Peter Albion,Coral Campbell	2018	Technologies Education for the Primary Years	n/a	Cengage AU

# 8.2. Specific requirements

Students enrolled in this course are required to bring a laptop or tablet with Internet connectivity to class each week.

# 9. How are risks managed in this course?

Health and safety risks for this course have been assessed as low. It is your responsibility to review course material, search online, discuss with lecturers and peers and understand the health and safety risks associated with your specific course of study and to familiarise yourself with the University's general health and safety principles by reviewing the <u>online induction training for students</u>, and following the instructions of the University staff.

# 10. What administrative information is relevant to this course?

### 10.1. Assessment: Academic Integrity

Academic integrity is the ethical standard of university participation. It ensures that students graduate as a result of proving they are competent in their discipline. This is integral in maintaining the value of academic qualifications. Each industry has expectations and standards of the skills and knowledge within that discipline and these are reflected in assessment.

Academic integrity means that you do not engage in any activity that is considered to be academic fraud; including plagiarism, collusion or outsourcing any part of any assessment item to any other person. You are expected to be honest and ethical by completing all work yourself and indicating in your work which ideas and information were developed by you and which were taken from others. You cannot provide your assessment work to others. You are also expected to provide evidence of wide and critical reading, usually by using appropriate academic references.

In order to minimise incidents of academic fraud, this course may require that some of its assessment tasks, when submitted to Canvas, are electronically checked through Turnitin. This software allows for text comparisons to be made between your submitted assessment item and all other work to which Turnitin has access.

## 10.2. Assessment: Additional Requirements

Eligibility for Supplementary Assessment

Your eligibility for supplementary assessment in a course is dependent of the following conditions applying:

The final mark is in the percentage range 47% to 49.4%

The course is graded using the Standard Grading scale

You have not failed an assessment task in the course due to academic misconduct

## 10.3. Assessment: Submission penalties

Late submission of assessment tasks may be penalised at the following maximum rate:

- 5% (of the assessment task's identified value) per day for the first two days from the date identified as the due date for the assessment task.
- 10% (of the assessment task's identified value) for the third day 20% (of the assessment task's identified value) for the fourth day and subsequent days up to and including seven days from the date identified as the due date for the assessment task.
- A result of zero is awarded for an assessment task submitted after seven days from the date identified as the due date for the assessment task. Weekdays and weekends are included in the calculation of days late. To request an extension you must contact your course coordinator to negotiate an outcome.

## 10.4. SafeUniSC

UniSC is committed to a culture of respect and providing a safe and supportive environment for all members of our community. For immediate assistance on campus contact SafeUniSC by phone: <a href="mailto:07.5430.1168">07.5430.1168</a> or using the <a href="mailto:SafeZone">SafeZone</a> app. For general enquires contact the SafeUniSC team by phone <a href="mailto:07.5456.3864">07.5456.3864</a> or email <a href="mailto:safe@usc.edu.au">safe@usc.edu.au</a>.

The SafeUniSC Specialist Service is a Student Wellbeing service that provides free and confidential support to students who may have experienced or observed behaviour that could cause fear, offence or trauma. To contact the service call <u>07 5430 1226</u> or email <u>studentwellbeing@usc.edu.au</u>.

#### 10.5. Study help

For help with course-specific advice, for example what information to include in your assessment, you should first contact your tutor, then your course coordinator, if needed.

If you require additional assistance, the Learning Advisers are trained professionals who are ready to help you develop a wide range of academic skills. Visit the <u>Learning Advisers</u> web page for more information, or contact Student Central for further assistance: +61 7 5430 2890 or <u>studentcentral@usc.edu.au</u>.

## 10.6. Wellbeing Services

Student Wellbeing provide free and confidential counselling on a wide range of personal, academic, social and psychological matters, to foster positive mental health and wellbeing for your academic success.

To book a confidential appointment go to Student Hub, email studentwellbeing@usc.edu.au or call 07 5430 1226.

#### 10.7. AccessAbility Services

Ability Advisers ensure equal access to all aspects of university life. If your studies are affected by a disability, learning disorder mental health issue, injury or illness, or you are a primary carer for someone with a disability or who is considered frail and aged, AccessAbility Services can provide access to appropriate reasonable adjustments and practical advice about the support and facilities available to you throughout the University.

To book a confidential appointment go to Student Hub, email AccessAbility@usc.edu.au or call 07 5430 2890.

## 10.8. Links to relevant University policy and procedures

For more information on Academic Learning & Teaching categories including:

- Assessment: Courses and Coursework Programs
- · Review of Assessment and Final Grades
- Supplementary Assessment
- · Central Examinations
- Deferred Examinations
- Student Conduct
- · Students with a Disability

For more information, visit https://www.usc.edu.au/explore/policies-and-procedures#academic-learning-and-teaching

#### 10.9. Student Charter

UniSC is committed to excellence in teaching, research and engagement in an environment that is inclusive, inspiring, safe and respectful. The <u>Student Charter</u> sets out what students can expect from the University, and what in turn is expected of students, to achieve these outcomes.

## 10.10.General Enquiries

## In person:

- UniSC Sunshine Coast Student Central, Ground Floor, Building C, 90 Sippy Downs Drive, Sippy Downs
- UniSC Moreton Bay Service Centre, Ground Floor, Foundation Building, Gympie Road, Petrie
- UniSC SouthBank Student Central, Building A4 (SW1), 52 Merivale Street, South Brisbane
- UniSC Gympie Student Central, 71 Cartwright Road, Gympie
- UniSC Fraser Coast Student Central, Student Central, Building A, 161 Old Maryborough Rd, Hervey Bay
- UniSC Caboolture Student Central, Level 1 Building J, Cnr Manley and Tallon Street, Caboolture

Tel: +61 7 5430 2890

Email: studentcentral@usc.edu.au