COURSE OUTLINE

EDU774 Teaching Primary School Mathematics

School: School of Education and Tertiary Access

2026 | Trimester 1

UniSC Sunshine Coast
UniSC Moreton Bay

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 unisc.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 will advance your knowledge and application of mathematics as you explore and interpret the ongoing process of curriculum development and emerging versions of the Australian Curriculum: Mathematics. You will scrutinise the use of pedagogy and assessment for learning and teaching that meets the needs of all learners in primary classrooms. This course develops your ability to critically reflect on mathematics teaching practice and on your personal identity as a primary school mathematics teacher.

1.2. How will this course be delivered?

ACTIVITY	HOURS	BEGINNING WEEK	FREQUENCY
BLENDED LEARNING			
Learning materials – 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
Tutorial/Workshop 1 – On campus tutorial.	2hrs	Week 1	10 times

1.3. Course Topics

- Understanding the Australian Curriculum: Mathematics (six strands)
- Mathematics Content Knowledge (MCK) for teaching mathematics in primary schools
- Understanding how children learn mathematics
- Differentiating curriculum to be inclusive of all learners
- Inquiry based learning experiences
- Teacher-led instruction, including worked examples, and the gradual removal of scaffolding as students become proficient
- Independent problem solving as a strategy for students demonstrating proficiency
- Assessing students' mathematics learning
- Literacy, numeracy and digital literacy as General Capabilities in the Australian Curriculum
- Science, Technology, Engineering and Mathematics (STEM) in primary schools

2. What level is this course?

700 Level (Specialised)

Demonstrating a specialised body of knowledge and set of skills for professional practice or further learning. Advanced application of knowledge and skills in unfamiliar contexts.

3. What is the unit value of this course?

12 units

4. How does this course contribute to my learning?

COURSE LEARNING OUTCOMES On successful completion of this course, you should be able to...	GRADUATE QUALITIES MAPPING Completing these tasks successfully will contribute to you becoming...	PROFESSIONAL STANDARD MAPPING * Australian Institute for Teaching and School Leadership
1 Explain mathematics teaching, learning and assessment in primary schools aligned with educational theories	Knowledgeable	2.1, 2.2, 2.3, 2.5, 2.6
2 Apply deep knowledge of mathematics, including mathematical communication, to demonstrate proficiency necessary to develop students' conceptual knowledge and understanding of mathematics in primary schools.	Empowered	2.1, 2.2, 2.5, 2.6
3 Apply deep knowledge of mathematics curriculum, pedagogy and assessment to the design of learning experiences and assessment opportunities that are informed by a range of teaching strategies and cater for diverse learner needs.	Empowered	2.1, 2.2, 2.3, 2.5, 2.6, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 5.1, 5.2, 5.3, 5.4, 5.5
4 Explain the meaning of numeracy and its place as a general capability across all learning areas in the Australian Curriculum.	Knowledgeable	2.1, 2.2, 2.3, 2.5, 2.6
5 Communicate in written and oral texts using academic literacy skills including English expression, grammar, spelling, punctuation, and APA referencing conventions.	Knowledgeable	

* Competencies by Professional Body

CODE	COMPETENCY
AUSTRALIAN INSTITUTE FOR TEACHING AND SCHOOL LEADERSHIP	
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.
2.5	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.

CODE	COMPETENCY
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.
5.1	Assess student learning: Demonstrate understanding of assessment strategies, including informal and formal, diagnostic, formative and summative approaches to assess student learning.
5.2	Provide feedback to students on their learning: Demonstrate an understanding of the purpose of providing timely and appropriate feedback to students about their learning
5.3	Make consistent and comparable judgements: Demonstrate understanding of assessment moderation and its application to support consistent and comparable judgements of student learning.
5.4	Interpret student data: Demonstrate the capacity to interpret student assessment data to evaluate student learning and modify teaching practice.
5.5	Report on student achievement: Demonstrate understanding of a range of strategies for reporting to students and parents/ carers and the purpose of keeping accurate and reliable records of student achievement

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 ED707 Master of Teaching (Primary).

5.2. Co-requisites

Not applicable

5.3. Anti-requisites

Not applicable

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

Not applicable

5.5. Microcredential Information

Not applicable

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

A draft copy of your conference poster (Task 1) will be peer reviewed in your tutorial in Week 3.

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	Oral and Written Piece	Group	30%	1000 words (on poster) and 15-minute presentation	Week 4	Online Assignment Submission with plagiarism check and in class
All	2	Written Piece	Individual	40%	2000 words (inclusive of essay and peer feedback) and assessment task, rubric and mathematical response to the task.	Week 7	Online Assignment Submission with plagiarism check
All	3	Quiz/zes	Individual	30%	1.5 hours	Week 10	In Class

All - Assessment Task 1: Conference Poster and Presentation

GOAL:	The goal of this task is to collaborate with colleagues and demonstrate a mastery of knowledge and understanding of the concepts, substance and structure of real-world mathematical problem solving (numeracy) and apply this to learning mathematics in primary school classrooms.
PRODUCT:	Oral and Written Piece
AUTHORSHIP STATEMENT:	
FORMAT:	This task gives you the opportunity to create and present a conference poster of a real-world problem-solving task that your group has investigated. The stimulus for the problem can be any real-world situation of interest to you (e.g., How much water is wasted by a dripping tap? Is red wine good for your health? What is the best mobile phone plan?). You are to investigate your problem and create a digital poster (e.g., using PowerPoint or Canva) to display your findings in written and visual form. Supply a worked example of the problem and reflect on how the investigation could be adapted for learning mathematics in primary schools according to students' levels of proficiency. Describe what should be taught explicitly, what could be scaffolded, and what could be inquiry-based as students become more proficient. Specify the year level for this problem (e.g., Year 5 students) and how it connects to the numeracy General Capability. Refer to Canvas for further details.
CRITERIA:	

No.		Learning Outcome assessed
1	Application of deep mathematical knowledge, including mathematical communication, to demonstrate proficiency necessary to develop students' conceptual knowledge and understanding of mathematics in primary schools.	2
2	Explanation of the meaning of numeracy its place as a general capability across all learning areas in the Australian Curriculum.	4
3	Explanation of mathematics teaching and learning in primary schools aligned with educational theories.	1
4	Application of deep knowledge of mathematics curriculum and pedagogy to the design of learning experiences that are informed by a range of teaching strategies and cater for diverse learner needs.	3
5	Communication in written and oral texts using academic literacy skills including English expression, grammar, spelling, punctuation, and APA referencing conventions.	5

GENERIC SKILLS:	Communication, Collaboration, Problem solving

All - Assessment Task 2: Assessment Task, Rubric and Task Response, Peer Feedback, and Reflective Essay

GOAL:	The goal of this task is to apply assessment principles to the design of assessment tasks and rubrics that could be used to assess mathematics learning in primary school classrooms.
PRODUCT:	Written Piece
AUTHORSHIP STATEMENT:	
FORMAT:	Part A: Assessment Task, Rubric and Task Response (due end of Week 5) • Apply current theories, assessment principles and research to design a mathematics task that can be used to assess students' mathematical learning. The assessment task you design should include problem-solving activities for both familiar and unfamiliar questions/scenarios. • Create a rubric that is aligned to the assessment task and provides criteria and standards of achievement for Year 4, 5 or 6 in the Australian Curriculum: Mathematics. Include mathematical literacy (reading, writing, and comprehension) in your rubric. Make sure you can clearly evaluate the students' progress, to adjust instruction, provide targeted feedback, and support learning. • Provide a mathematical response (worked example) to your assessment task. This should include examples of targeted feedback to support learning. Part B: Peer feedback (200-300 words; due end of Week 6) • Provide feedback on a peer's task and rubric. The task and rubric and your feedback must be consistent with current theories, assessment principles, and research. There should be a focus on reviewing the effective numeracy and mathematics teaching and assessment practices for building fluency, understanding, problem solving and reasoning. • Justify your feedback with reference to appropriate literature (eg. use citations and a reference list). Part C: Reflective essay (1000-1200 words) • Explain mathematics assessment principles used in the mathematics assessment task and rubric you designed. Demonstrate your understanding and expertise regarding effective teaching of numeracy for building fluency, understanding, problem solving and reasoning. • Using current, relevant academic literature, critically evaluate and justify the value of your task and rubric for assessing mathematical learning with reference to mathematics assessment principles. Refer to Canvas for further details.
CRITERIA:	

No.		Learning Outcome assessed
1	Application of deep knowledge of mathematics curriculum, pedagogy and assessment to the design of learning experiences and assessment opportunities that are informed by a range of teaching strategies and cater for diverse learner needs.	3
2	Explanation of mathematics assessment in primary schools aligned to educational theories.	1
3	Application of deep mathematics knowledge, including mathematical communication, necessary for developing students' conceptual knowledge and understanding in primary schools.	2
4	Communication in written texts using academic literacy skills including English expression, referencing conventions, grammar, technical accuracy.	5

GENERIC SKILLS:	Communication, Collaboration

All - Assessment Task 3: In-class quiz

GOAL:	The goal of this task is to synthesise knowledge of curriculum, pedagogy and assessment.
PRODUCT:	Quiz/zes
AUTHORSHIP STATEMENT:	
FORMAT:	Short answer quiz questions based on content from Learning materials and tutorial activities. The quiz questions require application of knowledge of mathematics, curriculum, pedagogy and assessment. Refer to Canvas for further details.
CRITERIA:	

No.		Learning Outcome assessed
1	Application of deep mathematical knowledge, including mathematical communication, necessary to develop students' conceptual knowledge and understanding of mathematics in primary schools.	2
2	Application of deep knowledge of mathematics curriculum, pedagogy and assessment to the design of learning experiences and assessment opportunities that are informed by a range of teaching strategies and cater for diverse learner needs.	3

GENERIC SKILLS:	Communication, Problem solving

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

You need regular access to the resource(s) below. Many texts are available as ebooks through the Library at no additional cost.

REQUIRED?	AUTHOR	YEAR	TITLE	EDITION	PUBLISHER
Required	Robyn Jorgensen,Shelley Dole,Kevin Larkin	0	Teaching Mathematics in Primary Schools	n/a	Routledge
Recommended	John Van de Walle,Karen Karp,Jennifer Bay-Williams,Amy Brass,Brendan Bentley,Sue Ferguson,Wendy Goff,Sharyn Livy,Margaret Marshman,David Martin,Cath Pearn,Theodosia Prodromou,Duncan Symons,Karina Wilkie	0	Primary and Middle Years Mathematics: Teaching Developmentally	n/a	Pearson

8.2. Specific requirements

Nil

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 online induction training for students, 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:
(a) The final mark is in the percentage range 47% to 49.4%; and
(b) The course is graded using the Standard Grading scale

10.3. Assessment: Submission penalties

Late submissions may be penalised up to and including the following maximum percentage of the assessment task's identified value, with weekdays and weekends included in the calculation of days late:
(a) One day: deduct 5%;
(b) Two days: deduct 10%;
(c) Three days: deduct 20%;
(d) Four days: deduct 40%;
(e) Five days: deduct 60%;
(f) Six days: deduct 80%;
(g) Seven days: A result of zero is awarded for the assessment task.

The following penalties will apply for a late submission for an online examination:
Less than 15 minutes: No penalty
From 15 minutes to 30 minutes: 20% penalty
More than 30 minutes: 100% penalty

10.4. 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

10.5. Student Charter

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

10.6. General Enquiries

For course-specific questions, contact your teaching staff or Course Coordinator.

For other enquiries or to access support, please contact Student Central:

- UniSC Student Central
- UniSC Adelaide Student Central