

TEAC 3019 NUMERACY AND MATHEMATICS IN YEARS 3-6

Credit Points 10

Legacy Code 102649

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Description This unit explores pedagogy specifically relating to the teaching and learning of primary mathematics in years 3 - 6. This unit is one of 16 units that provide opportunities for students as Pre-service Teachers to prepare for their future employment as a teacher and to engage with the key elements of the New South Wales Education Standards Authority (NESA). Students will develop skills in pedagogy and practice within the area of primary mathematics. The knowledge and skills developed in the other units of study in the course can be applied in this unit and the knowledge and skills developed in this unit can be applied in other units in the course.

School Education

Discipline Teacher Education: Primary

Student Contribution Band HECS Band 1 10cp

Check your HECS Band contribution amount via the Fees (https://www.westernsydney.edu.au/currentstudents/current_students/fees/) page.

Level Undergraduate Level 3 subject

Restrictions Students must be enrolled in and have successfully completed 160 credit points in the Bachelor of Education (Primary).

Learning Outcomes

On successful completion of this subject, students should be able to:

1. Demonstrate knowledge and understanding of the development of the concepts, skills and processes of mathematics related to the teaching of number and algebra, measurement and geometry, and statistics and probability for 8 to 12 year olds in accordance with the NSW K-10 Syllabus for the Australian Curriculum: Mathematics K-10 syllabus (for K-6), and the ACARA Numeracy Progressions;
2. Explain the importance of the Working Mathematically processes for primary school mathematics learners and teachers;
3. Plan effective and engaging teaching and learning experiences for mid to upper primary learners that include the use of a range of digital resources to enhance student outcomes;
4. Apply knowledge and understanding of a range of engaging pedagogies for teaching and learning mathematics, including cooperative learning, problem solving and investigation based approaches;
5. Evaluate student learning against curriculum requirements by interpreting student work samples, practising consistent and comparable judgements, and explain the importance of timely and appropriate feedback for student learning;
6. Demonstrate knowledge and understanding of teaching and assessment strategies for differentiating teaching and learning experiences in mathematics to meet the specific needs of students across the full range of abilities.

Subject Content

- theories of engagement, Numeracy development and learning in mathematics for students in The primary years

- Implementation of the NSW K-10 Mathematics syllabus across all strands, with particular focus on the Working Mathematically strand
- Incorporation of Problem solving and investigation-based pedagogies in primary mathematics and Numeracy
- strategies to address Affective Issues relating to The Teaching and learning of primary mathematics
- effective use of digital technologies to enhance The Teaching and learning of mathematics and improve student engagement
- Catering to learners from diverse backgrounds (e.g. cultural and linguistic)
- differentiation to address A range of abilities (including special needs and gifted and talented)
- investigation of rich tasks to promote Critical Numeracy
- effective assessment of mathematics and Numeracy
- investigation of The requirements of The ACARA Numeracy Progressions

Special Requirements

Legislative pre-requisites

Prior to enrolling in this subject:

1. Students are required to complete a Working with Children Check leading to the issuance of a clearance number under the category of volunteer.

Students will need to:

- i. Access the Commission for Children and Young People website and complete an online application form to generate an application number.
- ii. Present an application number and identification to a NSW Motor Registry or Government Access Centre prior to issuance by mail a Working with Children Check number.
- iii. Submit the letter with a valid Working With Children Check number to Student Central where the document is trimmed and recorded in Banner as a Special Requirement.

2. Students must have completed Child Protection Awareness Training (Online) prior to undertaking any visits/placements.

3. Students must have completed the ASCIA anaphylaxis e-training and registered their certificates with Student Central.

Assessment

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are regularly updated, where there is a difference your Learning Guide takes precedence.

Item	Length	Percent	Threshold	Individual/ Group Task
Critical Review	500 words	10	N	Individual
Professional Task	2000 words	40	N	Individual
Report	2000 words	50	N	Individual

Prescribed Texts

- Booker, G. (2014). Teaching primary mathematics (5th ed.). Frenchs Forest, Australia: Pearson Australia.
- NSW Board of Studies. (2012). NSW syllabus for the Australian curriculum: Mathematics K-10 syllabus (K-6 section). Sydney, Australia: NSW Board of Studies. Retrieved from <http://syllabus.bos.nsw.edu.au/download/>

Teaching Periods