

# TEAC 2043 NUMERACY AND MATHEMATICS IN THE EARLY YEARS

**Credit Points** 10

**Legacy Code** 102641

**Coordinator** Donna Dorahy ([https://directory.westernsydney.edu.au/search/name/Donna Dorahy/](https://directory.westernsydney.edu.au/search/name/Donna%20Dorahy/))

**Description** The unit will develop students' understandings of children's construction of mathematical and numeracy concepts during the years from Kindergarten to Year 3. Students will develop their ability to assess young children's mathematical understandings and numeracy development, and to provide learning experiences for a diversity of learners, including investigation and the use of digital technologies, to enhance the growth of children's mathematical thinking. The unit will study the NSW K-10 Syllabus in all of its strands, with a particular emphasis on the Working Mathematically strand.

**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/](https://www.westernsydney.edu.au/currentstudents/current_students/fees/)) page.

**Level** Undergraduate Level 2 subject

**Restrictions** Students must be enrolled in the B Education (Primary) and have successfully completed 80 credit points.

## Learning Outcomes

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

1. Examine ways the beliefs, attitudes, and values held by themselves and their students affect their mathematical learning and teaching;
2. Apply the concepts, skills and processes of mathematics related to the teaching of space, measurement, data, patterns and algebra and number for 5 to 9 year olds in accordance with the current NSW Syllabus for the Australian Curriculum: Mathematics K-10, Support Documents and ACARA Numeracy Progressions;
3. Apply a range of pedagogies for teaching and learning mathematics, including problem solving and investigation based approaches;
4. Explain the importance of Working Mathematically for primary school mathematics learners and teachers, and the relationship to literacy;
5. Identify appropriate assessment strategies to inform the planning of teaching/learning activities that cater for the diverse needs of individual students with an emphasis on programs such as Count Me In Too, Count Me In Too (Indigenous), Targeted Early Numeracy (TEN) and Taking off with Numeracy (TOWN);
6. Apply understandings of the role of mathematics within the broader school curriculum, including the relationship between mathematics, numeracy and literacy;
7. Examine the mathematical learning needs of students from diverse backgrounds, such as Aboriginal and Torres Strait Islander, English as an Additional Language/ Dialect, culturally diverse.

## Subject Content

- The development and construction of mathematical ideas during The early years of schooling
- Recognition of early mathematical thinking that children can bring to school
- early Understanding of whole number relationships
- Numerical thinking strategies
- early spatial thinking
- The development of measurement concepts
- use of Problem solving and investigation as An effective pedagogy in The mathematics Classroom
- programming and planning for mathematics in The early years
- assessment strategies for The mathematics Classroom
- pedagogies that address diversity within The mathematic Classroom
- integration of mathematics with other key learning areas
- using programs such as Count Me in Too, TENS, and The ACARA Numeracy Progressions for Numeracy Teaching and learning
- children's literature, concrete manipulatives, and digital tools for Teaching mathematics and Numeracy

## 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
Report	2000 words	50	N	Individual
Professional Task	2000 words	50	N	Individual

Prescribed Texts

- Booker, G., Bond, D., Sparrow, L., & Swan, P. (2020 or 2021). Teaching primary mathematics (6th ed.). Frenchs Forest, New South Wales: 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.nesa.nsw.edu.au/download/>

Teaching Periods

## Autumn

### Bankstown

#### Day

**Subject Contact** Donna Dorahy ([https://directory.westernsydney.edu.au/search/name/Donna Dorahy/](https://directory.westernsydney.edu.au/search/name/Donna%20Dorahy/))

View timetable ([https://classregistration.westernsydney.edu.au/even/timetable/?subject\\_code=TEAC2043\\_22-AUT\\_BA\\_D#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=TEAC2043_22-AUT_BA_D#subjects))