

TEAC 1028 NUMERACY FOR TEACHING

Credit Points 10

Legacy Code 102113

Coordinator John Ley (<https://directory.westernsydney.edu.au/search/name/John Ley/>)

Description The subject is only offered to students enrolled in the Bachelor of Education (Primary) Aboriginal and Torres Strait Islander Education program. This subject considers beginning teachers' own mathematics skills and knowledge and how they can use them to support their own numeracy. Primary school teacher education students need to feel confident and competent in their understanding of mathematics as well as in mathematics pedagogy. Students will use a variety of investigative techniques to increase their experience of patterns and relationships in mathematics. The inherent structure of mathematics will be approached through the examination of various mathematical systems and their relationship to the current mathematics K-6 syllabus. Mathematics is specifically taught within this subject to develop professional skills required to meet the demands of primary classroom teaching.

School Education

Discipline Teacher Education: Primary

Student Contribution Band HECS Band 1 10cp

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

Level Undergraduate Level 1 subject

Equivalent Subjects EDUC 1007 - Numeracy for Teaching

Restrictions

Students must be enrolled in 1717 - Bachelor of Education (Primary) Aboriginal and Torres Strait Islander Education.

Learning Outcomes

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

- Identify the proficiency strands of the Australian Curriculum including communicating, understanding, fluency, problem solving and reasoning. (Standard 2.3.1).
- Identify the content strands of the Australian Curriculum including Number and Algebra, Measurement and Geometry and Statistics and Probability. (Standard 2.3.1).
- Identify patterns and relationships in mathematics in the real-world contexts. (Standard 2.1.1).
- Solve mathematical problems related to factors, multiples, primes and composites. (Standard 2.1.1).
- Solve mathematical problems related to volume and measurement. (Standard 2.1.1).
- Solve mathematical problems related to decimals, fractions and percentages. (Standard 2.1.1).
- Solve mathematical problems related to chance and data. (Standard 2.1.1).
- Solve mathematical problems related to geometry (2 and 3D shapes). (Standard 2.1.1).

Subject Content

- Mathematics for teaching, introduction to the mathematics syllabus continuum K-12 and strands: Number and Algebra, Measurement and Geometry, Statistics and Probability as well as Working Mathematically and its five components: Communicating, Problem Solving, Reasoning, Understanding and Fluency.
- Language of number.
- Nature and role of mathematics in describing and modelling patterns and relationships that can be generalised, and as a means of interpreting the world.
- Number: 4 Operations - Addition, Subtraction, Multiplication and Division and the Order of Operations, Fractions, Decimals and Percentages and their Equivalence, Financial Mathematics, Ratios and Rates, Logarithms, Factors, Multiples, Primes and Composites.
- Patterns and Algebra: Algebraic Techniques, Indices, Equations, Linear and Non-Linear Relationships, Functions and Other Graphs, Polynomials.
- Measurement: Length, Area, Volume and Capacity, Mass, Time.
- Geometry: 3D Space, 2D Space
- Statistics and Probability: Chance, Data collection and Representation, Single Variable and Bivariate Data Analysis.

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.

Type	Length	Percent	Threshold	Individual/ Group Task	Mandatory
Professional, Task	400 words	25	N	Individual	Y
Professional, Task	500 words	25	N	Individual	Y
Professional, Task	1/2 to 1 hour per week	S/U	N	Individual	Y
Final Exam	2 hours	50	N	Individual	Y

Prescribed Texts

- Booker, G., Bond, D., Sparrow, L., & Swan, P. (2014). Teaching primary mathematics (5th ed.). Frenchs Forest, Australia: Pearson.