# TEAC 3039 MATHEMATICS 1: GEOMETRY, NUMBER AND ALGEBRA YEARS K-6

**Credit Points** 10

**Legacy Code** 102751

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

**Description** The unit is only offered to students enrolled in the Bachelor of Education (Primary) Aboriginal and Torres Strait Islander Education program. This unit is designed to enhance teacher education students' understanding of the NSW Syllabus for the Australian Curriculum: Mathematics K-10. The unit provides greater understanding of the content areas of measurement, number, geometry, algebra and statistics in the K-6 classroom focusing on years 5 and 6 and into the secondary school mathematics curriculum. The unit makes clear links to secondary school (year 7) mathematics and will develop the students' conceptual understanding of mathematics and numeracy learning progression from primary to secondary school.

**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

**Pre-requisite(s)** TEAC 1028 AND
TEAC 1010

**Restrictions** Students must be enrolled in the Bachelor of Education (Primary) Aboriginal and Torres Strait Islander Education.

## Learning Outcomes

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

1. Design learning experiences and lessons with a focus on years 5 and 6;
2. Provide classroom opportunities to use continuous scales in measurement linked to an understanding of the number system, particularly of decimals;
3. Use appropriate measurement units based on the degree of accuracy required for a range of mathematical tasks;
4. Explore relationships within existing data sets and explore these data sets, using a variety of representations;
5. Use deductive reasoning to justify and support conclusions that are appropriate to the context;
6. Demonstrate the development of geometrical concepts and apply them in an appropriate manner to real world classroom teaching including ICT;
7. Demonstrate the relationship between patterns and algebra;
8. Selects and apply appropriate problem-solving strategies in undertaking mathematical investigations.

## Subject Content

- Identifies, draws, and classifies 2 dimensional shapes and 3 dimensional objects and their properties
- Measure, construct and calculate angles. Geometry: 3D Space, 2D Space, Angles and Angle Relationships, Position, Properties of Geometrical Figures, Right-Angled Triangles, Trigonometry and Pythagoras?f Theorem
- Circle geometry
- explore relationships between number and algebraic representations of number sentences
- use Problem solving skills to complete modelling Activities
- Planning mathematics lessons and learning experiences for students in years 5 and 6

## 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 |
|---|---|---|---|---|
| Professional Task | 1500 words | 30 | N | Individual |
| Final Exam | 1.5 hours | 40 | N | Individual |
| Professional Task | 1200 words | 30 | N | Individual |

Teaching Periods

## 1st Half

### Bankstown

#### Day

**Subject Contact** John Ley (https://directory.westernsydney.edu.au/search/name/John Ley/)

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=TEAC3039_22-1H_BA_D#subjects)