

## UNIT OUTLINE FOR EDP151.9 Primary Mathematics

|                                     |
|-------------------------------------|
| <b>Name of Unit 1 (Unit Code 1)</b> |
| Primary Mathematics (EDP151.9)      |

### SECTION 1 – GENERAL INFORMATION

#### Administrative details

| <b>Associated higher education awards</b> | <b>Duration</b> | <b>Level</b><br><i>(for example, introductory, intermediate, advanced level, 1st year, 2nd year, 3rd year)</i> | <b>Unit Coordinator</b><br><i>(incl. academic title)</i> |
|---|-----------------|--|--|
| Master of Teaching – Primary              | One semester    | 1 <sup>st</sup> year   | Head of Program  |

#### Core or elective unit

Indicate if the unit is a

- core unit
- elective unit
- other (please specify below):

#### Unit weighting

Using the table below, indicate the credit point weighting of this unit and the credit point total for the course of study (for example, 10 credit points for the unit and 320 credit points for the course of study).

| <b>Unit credit points</b> | <b>Total course credit points</b> |
|---------------------------|-----------------------------------|
| 6 credit points           | 96 credit points                  |

#### Student workload

Using the table below, indicate the expected student workload per week for this unit.

| <b>No. timetabled hours per week</b> | <b>No. personal study hours per week</b> | <b>Total workload hours per week</b> |
|--------------------------------------|--|--------------------------------------|
| 3                                    | 6  | 9                                    |

For those students requiring additional English language support, how many additional hours per week is it expected that they will undertake?

Additional English language support:   0   hours per week

#### Pre-requisites and co-requisites

Are students required have undertaken a prerequisite or co-requisite unit for this unit?

- Yes    No

If **YES**, provide details of the prerequisite or co-requisite requirements below.

**SECTION 2 – ACADEMIC DETAILS****Brief description of the content of the unit**

This unit introduces the pre-service teacher to research based theories and teaching methodologies which lead to the development of mathematical competence in learners. It examines engaging approaches, strategies, and resources for the teaching and learning of the current Primary Mathematics curriculum based on the Australian Curriculum.

**Learning outcomes for the unit**

1. Critically evaluate traditional and research-based approaches to the teaching and learning of Mathematics
2. Analyse the Australian Curriculum: Mathematics and use it to plan effective learning.
3. Justify the significance of conceptual understanding in the teaching and learning of Mathematics
4. Identify, locate and evaluate resources for teaching and learning in Mathematics for effective student learning and engagement.

**Assessment tasks**

| Type   | Learning Outcome/s assessed | When assessed – year, session and week | Weighting |
|--|-----------------------------|--|-----------|
| <b>Academic paper</b><br>Based on current research, explain how mathematics is best taught and learnt and give examples (2400 words)   | 1,2,3                       | S1 Week 6                              | 40%       |
| <b>Curriculum planning resource</b><br>A collection of resource cards for a range of activities showing curriculum content, teaching and assessment strategies, critical evaluations and references for further resources (3600 words) | 1,2,3,4                     | S1 Week 14                             | 60%       |

## 2.1 Prescribed and recommended readings

Provide below, in formal reference format, a list of the prescribed and recommended readings for the unit.

### Prescribed reading:

Jorgensen, R., & Dole, S. (2020). *Teaching mathematics in Primary School*. (3rd ed.). Sydney: Allen & Unwin.

### Recommended reading:

#### E-books

Rickard, C. (2013). *Essential Primary Mathematics*. U.K. Open University

#### • Hard Copy

Bobis, J., Mulligan, J., & Lowrie, T. (2013). *Mathematics for children: Challenging children to think mathematically*. (4<sup>th</sup> ed.). Australia: Pearson Education.

Booker, George, Bond, Denise, Sparrow, Len, & Swan, Paul. (2010). *Teaching primary mathematics* (Fourth ed.). Frenchs Forest, N.S.W.: Pearson Australia.

Haylock, D. (2010). *Mathematics explained for primary teachers* (4<sup>th</sup> ed.). London: Sage Publications

Reys, R. E. et al. *Helping Children Learn Mathematics*. 1st Australian edition. Milton, Qld: John Wiley & Sons Australia, (2012).

Siemon, D. E. (Dianne Elizabeth) et al. (2015.) *Teaching Mathematics: Foundations to Middle Years*. Second edition. South Melbourne, Victoria: Oxford University Press,

Van de Walle, John, A.; Karp, Karen, S. (2019). *Elementary and Middle School Mathematics: Teaching Developmentally, Global Edition* (10<sup>th</sup> ed.). P&C Education