EDUC90834 Primary Mathematics Education2 Extension

Credit Points:	6.25
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2016, Parkville This subject commences in the following study period/s: July, Parkville - Taught on campus.
Time Commitment:	Contact Hours: 18 hours Total Time Commitment: 85 hours
Prerequisites:	Successful selection for Primary Maths Extension

Subject	Study Period Commencement:	Credit Points:
EDUC90778 Primary Mathematics Education 1	March	12.50

Corequisites:

Subject	Study Period Commencement:	Credit Points:
EDUC90369 Professional Practice and Seminar Prim 2	Summer Term, Semester 1, Semester 2	12.50

Recommended Background Knowledge:	None

Non Allowed Subjects:

Subject	Study Period Commencement:	Credit Points:
EDUC90773 Primary Mathematics Education 2	March, July	6.25

Core Participation Requirements:	For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Student Support and Engagement Policy, academic requirements for this subject are articulated in the Subject Overview, Learning Outcomes, Assessment and Generic Skills sections of this entry. It is University policy to take all reasonable steps to minimise the impact of disability upon academic study, and reasonable adjustments will be made to enhance a student's participation in the University's programs. Students who feel their disability may impact on meeting the requirements of this subject are encouraged to discuss this matter with a Faculty Student Adviser and Student Equity and Disability Support: http://services.unimelb.edu.au/disability
Coordinator:	Mrs Catherine Pearn
Contact:	**cpearn@unimelb.edu.au (mailto:cpearn@unimelb.edu.au)**
Subject Overview:	Teacher candidates will develop pedagogical content knowledge for the effective teaching and learning of the following mathematics strands from Foundation to Level 6: # Content Strand: Measurement and Geometry # Proficiency Strands: Understanding, Fluency, Problem Solving, Reasoning. Within this content strand, Candidates will critically analyse the development of key concepts in primary mathematics and identify critical progression points for children's learning. They will consider typical conceptions and misconceptions held by children, their likely causes, diagnostic tools to diagnose them and teaching strategies for changing them. They will review and critique resources for primary mathematics and examine tasks designed to achieve specific learning outcomes in these strands.

	Candidates will consider research evidence related to selected key issues of teaching Measurement and Geometry. They will examine cognitive and affective characteristics of mathematics classrooms that encourage deep learning in these content areas and in the proficiency strands. The links between mathematics and language will be examined, including a focus on strategies and resources for teaching those for whom English is a second language. They will examine the current Scope and Sequence (Australian Curriculum: Mathematics) and relate to various developmental pathways in the primary years, such as multiplicative thinking. Teacher candidates will develop a mathematics unit in Measurement and Geometry for use in primary mathematics classrooms.
Learning Outcomes:	On completion of this subject, with respect to the strands above, teacher candidates will be able to: # Demonstrate mastery of the topics and their everyday applications which are relevant to primary teaching or are necessary to be personally numerate; # Demonstrate a deep understanding of how children construct mathematical knowledge; # Demonstrate expert knowledge of a range of classroom teaching techniques; # Demonstrate expert knowledge of how children think and learn; # Demonstrate an outstanding ability to develop teaching activities and relate them to learning outcomes that cater for a diverse range of students; # Demonstrate understanding of alternative approaches to the teaching of mathematics across a primary school; and # Effectively engage students, parents, community members, and professional colleagues to support student learning and development.
Assessment:	There are two assessment tasks, both assessment tasks must be passed: A report of a formative assessment task in one Measurement or Space topic (1000 words) due mid-semester, 50% A report of a formative assessment task in a second Measurement or Space topic (1000 words) due at end of semester, 50% Hurdle requirements: Completion of 8 weekly tasks, 0% A mastery level pass (80%) of a Year 7 Measurement & Geometry Test, 0% This subject has a minimum hurdle requirement of 80% attendance at all scheduled lectures, tutorials, seminars and workshops.
Prescribed Texts:	Reys, R.E., Lindquist, M.L., Lambdin, D.V., Smith, N.L., Rogers, A., Falle, J., Frid, S., & Bennett, S. (2012). Helping Children Learn Mathematics, 1st Australian Edition, Melbourne: John Wiley.
Breadth Options:	This subject is not available as a breadth subject.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	On completion of this subject, teacher candidates will have the knowledge, skills and understanding to enable them to: # Be skilled communicators who can effectively articulate and justify their teaching practices; # Be flexible and able to adapt to change through knowing how to learn; # Understand the significance of developing their practice on the basis of research evidence; # Work in teams with skills in cooperation, communication and negotiation; # Be responsible, resilient, self-regulating and independent of mind; # Have a conscious personal and social values base.