

EDUC90863 Maths: Understanding & Fluency (F-6)

Credit Points:	12.5
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2016, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught online/distance.
Time Commitment:	Contact Hours: 24 hours Total Time Commitment: 170 hours
Prerequisites:	To enrol in this subject, you must be admitted in the Professional Certificate in Mathematics Education. This subject is not available for students admitted in any other courses.
Corequisites:	None
Recommended Background Knowledge:	Qualified primary or secondary teacher.
Non Allowed Subjects:	None
Core Participation Requirements:	For the purposes of considering requests for Reasonable Adjustments under the Disability Standards for Education (Commonwealth 2005), and Students Experiencing Academic Disadvantage Policy, academic requirements for this subject are articulated in the Subject Overview, Objectives, 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 course are encouraged to discuss this matter with the Student Equity and Disability Support Team: http://www.services.unimelb.edu.au/disability/
Coordinator:	Dr Vicki Steinle
Contact:	School of Melbourne Custom Programs TL-postgrad@unimelb.edu.au
Subject Overview:	This subject explores the pedagogical content knowledge for teaching Foundation to Year 6 mathematics, with a focus on the Australian Curriculum proficiency strands of Understanding and Fluency. Participants will study research on students' mathematical thinking, as well as teaching for procedural fluency and conceptual understanding. They will also consider pedagogical issues such as teacher questioning, selection of good examples and explanations, effective use of resources (e.g. technology and models) and the role of formative assessment. Links will be made between classroom practice and research into the teaching and learning of mathematics.
Learning Outcomes:	At the completion of this subject, students should be able to; <ul style="list-style-type: none"> 1 identify pedagogical issues related to the teaching and learning of primary mathematics 2 identify conceptual hurdles in primary mathematics and the importance of formative assessment for diagnosing students' understanding and skills in order to inform teaching 3 design teaching to promote deep mathematical understanding and challenge all students 2 understand how the mathematical proficiencies of understanding and fluency may be developed across the content strands in primary mathematics 3 critique Foundation to Year 6 mathematics teaching resources in the light of research evidence 6 choose and use technology appropriately and efficiently in mathematics teaching, 7 promote students' use of correct verbal and written mathematics
Assessment:	Report critiquing resources for a given topic (2500 words) - due mid teaching period - 50% Report on issues associated with the teaching and learning of a given topic (2500 words) - due at the end of the teaching period - 50% Hurdle requirements: Participation in intensives, completion of all online tasks (including contribution to wikis, online discussion forums)

Prescribed Texts:	Nil
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:	Graduates will develop the following generic skills: <ul style="list-style-type: none"># 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# Be skilled communicators who can effectively articulate and justify their practices as knowledgeable agents of change# Work in teams with skills in cooperation, communication and negotiation
Links to further information:	http://www.commercial.unimelb.edu.au/courses
Related Course(s):	Professional Certificate in Mathematics Education (Primary)