PR-MTHEDPR Professional Certificate in Mathematics Education (Primary)

Year and Campus:	2016 - Parkville
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Level:	Graduate/Postgraduate
Duration & Credit Points:	25 credit points taken over 6 months part time.
Coordinator:	Dr Vicki Steinle
Contact:	**School of Melbourne Custom Programs** Currently enrolled and future students: # General information: **http://www.commercial.unimelb.edu.au/courses (http://www.commercial.unimelb.edu.au/courses)** # Email: **TL-postgrad@unimelb.edu.au (mailto:TL-postgrad@unimelb.edu.au)**
Course Overview:	This course will focus on the mathematics pedagogical content knowledge required to teach the Australian mathematics curriculum for Foundation to Year 6. The course will consider the proficiency strands of Understanding, Fluency, Reasoning and Problem Solving across the content strands of Number and Algebra; Measurement and Geometry; Statistics and Probability. Links will be made between classroom practice and research into the teaching and learning of mathematics. Subjects will be delivered via a 'blended learning' approach, including face-to-face intensives, as well as on-line learning. Online communities will support collaboration between participants throughout the course. This course is designed for qualified primary and secondary teachers looking to develop their mathematics pedagogical content knowledge for the teaching of Foundation to Year 6 mathematics, or to take a leading role in mathematics teaching in their school. Completion of this course also positions participants for further studies in education.
Learning Outcomes:	At the completion of the course, students should be able to: 1 identify pedagogical issues related to the teaching and learning of primary mathematics 2 critique primary mathematics teaching resources in the light of research evidence 3 identify conceptual hurdles in primary mathematics and the importance of formative assessment for diagnosing students' understanding and skills in order to inform teaching 4 design teaching to promote deep mathematical understanding and challenge all students 5 choose and use technology appropriately and efficiently in mathematics teaching 6 understand how the mathematical proficiencies of understanding, fluency, problem solving and reasoning may be developed across the content strands in primary mathematics 7 promote students' use of correct verbal and written mathematics 8 appreciate the importance of students possessing a positive disposition towards learning and using mathematics.
Course Structure & Available Subjects:	To complete this course, students must pass 2 core subjects below
Subject Options:	Core subjects

Subject	Study Period Commencement:	Credit Points:
EDUC90863 Maths: Understanding & Fluency (F-6)	Semester 1	12.5
EDUC90866 Maths: Reasoning & Problem Solving(F-12)	Semester 1, Semester 2	12.5

Entry Requirements:	1. In order to be considered for entry, applicants must have completed; # An undergraduate degree and a fourth-year level teaching qualification, or equivalent; or # A four-year teaching degree of equivalent.

	Meeting these requirements does not guarantee selection. 2. In ranking applications, the Selection Committee will consider: # prior academic performance; and # relevant work experience 3. The Selection Committee may seek further information to clarify any aspect of an application in accordance with the Academic Board **rules (http://about.unimelb.edu.au/__data/assets/pdf_file/0007/1413727/Use-of-Selection-Instruments-Rules-of-the-Acdemic-Board-23-March-2015.pdf)** on the use of selection instruments. 4. The minimum English language requirements for this course are **Band 6.5 (http://futurestudents.unimelb.edu.au/admissions/entry-requirements/language-requirements)** .
Core Participation Requirements:	The Professional Certificate in Mathematics Education welcomes applications from students with disabilities. It is University and degree 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 degree. 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 course are articulated in the Course Overview, Objectives 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/
Further Study:	Successful completion of this course will enable 25 credit points to be credited towards the Master of Education at the Melbourne Graduate School of Education.
Graduate Attributes:	The Professional Certificate will enable graduates to achieve the following University of Melbourne: Academically excellent: Graduates will develop in-depth research and evidence-based knowledge of mathematics learning and the teaching that facilitates that learning. They will demonstrate a high level of achievement in problem-solving and communication. Graduates will be critical and creative thinkers, with an aptitude for continued self-directed learning and be adept at learning in a range of ways, including through information and communication technologies. Knowledgeable across disciplines: graduates will examine critically, synthesise and evaluate knowledge across a broad range of disciplines, particularly those with relevance to their education setting. They will expand their analytical and cognitive skills through learning experiences and have the capacity to participate fully in collaborative learning and to confront unfamiliar problems. As a result of completing the Professional Certificate in Mathematics Education course, they will have a set of flexible and transferable skills that will allow creative approaches to student learning and engagement to be implemented. Leaders in communities: Graduates of the Professional Certificate in Mathematics Education will initiate and implement constructive change in their school communities with a profound awareness of community needs. This may include, but not limited to, engaging in meaningful public discourse and mentoring 'younger' colleagues in education. Attuned to cultural diversity: Graduates of the Professional Certificate will be working within organisations characterised by cultural and other forms of diversity. This is reflected in such overarching documents as the Australian Charter for the Teaching Profession, the Melbourne Declaration on Educational Goals for Young People and the various national professional teaching standards and curriculum documents used in schools and other education settings. Graduates will value different cultures (including Indigenous cultures) and be well-informed citizens able to contribute to their communities wherever they choose to live and work. Active global citizens: Graduates of the course will be advocates for improving the sustainability of the environment through the mathematics content they teach and through their own leadership by example. They would have developed a broad global understanding of how education in general, and mathematics knowledge and skills in particular, can contribute to the further improvement of human rights, equity and ethics.
Generic Skills:	Graduates should develop the following generic skills: # 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