EDUC90691 Mathematics: Quality Teaching

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2011, Parkville This subject commences in the following study period/s: January, Parkville - Taught on campus.
Time Commitment:	Contact Hours: 24 Total Time Commitment: 120 hours total time commitment
Prerequisites:	None
Corequisites:	None
Recommended Background Knowledge:	N/A
Non Allowed Subjects:	N/A
Core Participation Requirements:	For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Students Experiencing Academic Disadvantage Policy, academic requirements for this subject are articulated in the Subject Description, Subject Objectives, Generic Skills and Assessment Requirements of this entry. The University is dedicated to provide support to those with special requirements. Further details on the disability support scheme can be found at the HDisability Liaison Unit websiteH: Hhttp:// www.services.unimelb.edu.au/disability/H
Coordinator:	Prof Kaye Stacey
Contact:	Education Student Centre
Subject Overview:	This subject will address quality teaching in mathematics and numeracy from theoretical, empirical and practical perspectives, using as a framework the e5 instructional model of levels of teacher development in 5 domains of quality teaching. Topics will include: research into quality mathematics teaching, including local and international studies of good teaching practice such as TIMSS Video Studies and in Learner's Perspective Study; how good teaching varies between countries; research into the links between teacher's knowledge and student learning; standards for quality numeracy teaching; critique of practical activities that exemplify instructional practices advocated on the basis of either theory, empirical research or agreed standards. The examples used will draw upon extensive video resources.
Objectives:	On completion of the subject students will be able to: • demonstrate a knowledge of current theory and research regarding knowledge required for teaching mathematics; • demonstrate a knowledge of theories of learning and instruction relevant to the teaching of mathematics; • demonstrate familiarity with local and international research into mathematics teaching; • demonstrate familiarity with national and international attempts to develop standards for mathematics teaching, the premises upon which these standards are based, and the issues associated with the promotion of quality teaching using standards; • describe classroom activities and teaching actions that illustrate different aspects of quality mathematics teaching; • demonstrate familiarity with a variety of approaches to teacher professional development and discuss, in an informed manner, the relative merits of these approaches for the promotion of quality mathematics teaching.
Assessment:	There are two assessment components:1. A 20 minute practical demonstration and presentation of a classroom activity lasting 20 minutes. (30%, mid semester)2. A theoretical paper of 3000 words, exploring an aspect of quality mathematics teaching (eg teacher questioning). The paper should report both theory and research related to the chosen aspect and conclude with criteria by which it can be evaluated. (70%, end of semester, 3000 words).
Prescribed Texts:	None

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:	Students completing this subject will be able to • demonstrate a superior knowledge and understanding of educational theory and practice in general and in a specialised area in particular; • express informed opinions about particular areas of current educational interest; • have an understanding of the theory and practice of educational research needed to evaluate research literature and carry out appropriate research activity; • make effective use of the findings of educational writings and research in addressing professional problems; • have the depth of knowledge and understanding that will enable them to be a resource for colleagues in particular professional situations; • demonstrate an appreciation of professional responsibilities and ethical principles which should characterise leaders in the education profession.
Related Course(s):	Master of Numeracy