EDUC90665 Mathematics Curriculum & Assessment

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	This subject is not offered in 2014.
Time Commitment:	Contact Hours: 24 hours. Total Time Commitment: 120 hours. Attendance at all classes (tutorial/seminars/practical classes/lectures/labs) is obligatory. Failure to attend 80% of classes will normally result in failure in the subject.
Prerequisites:	Enrolling students must have a teaching qualification either: # an undergraduate degree and a fourth-year level education qualification, or equivalent, or # a four-year education degree, or equivalent.
Corequisites:	None
Recommended Background Knowledge:	Good knowledge of mathematics to Year 11 level, and general knowledge of teaching practices in any subject.
Non Allowed Subjects:	None
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 Disability Liaison Unit website: http://www.services.unimelb.edu.au/disability/
Contact:	Education Student Centre 234 Queensberry Street Call: 13 MELB (13 6352)
Subject Overview:	This subject examines the curriculum pathways that are available for students in the post-compulsory years. In particular this subject will address how mathematics units can provide access to worthwhile and challenging mathematics learning experiences that take account of the needs and aspirations of the diverse range of students in the post compulsory years. It addresses three aims of senior mathematics – to apply mathematical knowledge and skills; to model, investigate and solve problems; and to use technology. A major focus will be designing tasks of varying complexity and curriculum units that meet the mathematical or numeracy needs of particular groups. The subject will therefore set a framework for the mathematical content and pedagogical knowledge developed in the other certificate subjects. Assessment requirements for senior mathematics qualifications and the design of assessment instruments and tasks such as those used for school based assessment and school assessed course work will be examined. Students will be expected to participate in intensive teaching, completion of weekly exercises to satisfactory standard and regularly contribute to the electronic forum.
Learning Outcomes:	On completion of this subject, participants will be able to # describe the role and function of mathematics pathways in the post-compulsory school years;; # demonstrate knowledge of teaching students to apply mathematics, to model and investigate problems mathematically and to use technology appropriately; # analyse mathematical tasks from the point of view of student learning; # explain how the goals of working mathematically can be achieved in senior mathematics courses.
Assessment:	Report of task analysis (2000 words equivalent) due mid semester (40%) Report on selected senior mathematics assessment tasks (3000 words) due end of semester (60%)

Prescribed Texts:	Goos, M., Stillman, G., & Vale, C. (2007). Teaching secondary school mathematics: Research and practice for the 21st century. Sydney: Allen & Unwin Further readings will be provided. Special requirement. Handheld calculator or computer software recommended for use in the VCE subject Mathematical Methods.
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:	# Be skilled communicators who can effectively articulate and justify their mathematics teaching practices; # Understand the significance of developing their mathematics teaching practice on the basis of research evidence; # Demonstrate mastery of the subject matter for this area of teaching and of general principles of effective teaching and learning in a mathematics context, including with technology
Related Course(s):	Postgraduate Certificate in Mathematics Teaching (Years 11-12)