EDUC90458 Learning Area Mathematics 2

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2011, Parkville This subject commences in the following study period/s: July, Parkville - Taught on campus. Parkville, On Campus
Time Commitment:	Contact Hours: 36 hours Total Time Commitment: 125 hours total commitment. 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:	You must have successfully completed the following subject/s prior to enrolling in this subject

Subject	Study Period Commencement:	Credit Points:
EDUC90457 Learning Area Mathematics 1	February	12.50

Corequisites:	None
Recommended Background Knowledge:	None
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 HDisability Liaison Unit websiteH: Hhttp://www.services.unimelb.edu.au/disability/H
Coordinator:	Assoc Prof Helen Chick
Contact:	Education Student Centre
Subject Overview:	This subject will focus on the teaching of senior secondary mathematics in Victoria, and consider key issues in mathematics education which are relevant to the post-compulsory years. Teacher candidates will develop pedagogical content knowledge for the effective teaching and learning of years 11-12 mathematics. They will consider the provision of mathematics and numeracy for all school students, including in vocational education. Teacher candidates will consider Victorian curriculum resources for senior secondary mathematics, assessment, use of graphics and symbolic calculators, use of school and state-wide data to improve school students' learning, and the provision of a balanced curriculum incorporating concepts, skills, applications, modelling and problem solving. They will examine international data on students' performance in mathematics, and appreciate features of teaching mathematics in Australia and other countries. Teacher candidates will consider research evidence related to key issues of teaching mathematics such as: the role of technology, equity, individual differences, school student learning in particular topics, the need for computational fluency, the role of statistical literacy.
Objectives:	On completion of this subject, teacher candidates will be able to: # demonstrate pedagogical content knowledge for teaching years 11-12 mathematics; # demonstrate knowledge of the years 11-12 mathematics curriculum; # demonstrate knowledge of issues and research related to mathematics education; # use resources, including graphics and symbolic calculators, effectively in mathematics teaching;

	# use school and statewide data to inform teaching practices; # demonstrate knowledge of assessment practices at years 11-12.
Assessment:	There are 3 assessment tasks: Lesson plan and pedagogical analysis, for year 11-12 mathematics (1000 words equivalent) due week 3 (25%) Report on assessment (2000 words) due mid semester (50%) Essay on an issue in mathematics education (1000 words) due end of semester (25%) There is 1 hurdle requirement: Completion of weekly tasks.
Prescribed Texts:	CAS calculator Goos, M., Stillman, G., Vale, C. (2007) Teaching Secondary Mathematics: Research and Practice for the 21st Century. Crows Nest NSW: Allen & Unwin.
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 practices as knowledgeable agents of changes. # 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 independent of mind, responsible, resilient, self-regulating; # Have a conscious personal and social values base.
Related Course(s):	Master of Teaching (Secondary) Master of Teaching (Secondary)