EDUC90670 Teaching Number

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	This subject is not offered in 2013.
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:	None
Corequisites:	None.
Recommended Background Knowledge:	Knowledge of mathematics to Year 10 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
Subject Overview:	This subject explores the content and pedagogical content knowledge needed to teach the Number strand in junior secondary mathematics, including fractions, decimals, negative numbers, number properties and operations. Participants will study research on students' mathematical thinking and effective teaching methods, analyse major teaching resources including instructional software and applets. Methods of identifying learners' special needs and differentiating instruction will be a focus. Research and practice on promoting conceptual change through cognitive conflict and discussion will be reviewed. Practical teaching tasks will complement theory. Students will be expected to participate in intensive teaching, complete weekly exercises to satisfactory standard and regularly contribute to the electronic forum.
Objectives:	On completion of this subject, participants will be able to # give overview of the content of this strand of mathematics # demonstrate insight into student thinking # review the options for teaching of the strand and relevant research # explain how the goals of working mathematically can be achieved through this strand # discuss critical pedagogical issues, especially related to diagnosis and remediation and promoting conceptual change.
Assessment:	Lesson plans and related pedagogical analysis (2000 words equivalent) due mid semester (40%) A written assignment on diagnosis and targeted teaching of school students' mathematical misconceptions (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 & UnwinFurther readings will be provided. Special requirement Years 7-10. Handheld calculator or computer software recommended for use in the VCE subject Further Mathematics.
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 7-10)