

# EDUC90426 Foundations of Mathematics Teaching

<b>Credit Points:</b>	12.50															
<b>Level:</b>	9 (Graduate/Postgraduate)															
<b>Dates &amp; Locations:</b>	This subject is not offered in 2013.															
<b>Time Commitment:</b>	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.															
<b>Prerequisites:</b>	A pass in a mathematics subject at Year 12.															
<b>Corequisites:</b>	None															
<b>Recommended Background Knowledge:</b>	None															
<b>Non Allowed Subjects:</b>	<p>Teacher candidates may not enrol in Learning Area - Mathematics 1, Learning Area - Mathematics 2, Learning Area - Mathematics (Additional) 1 or Learning Area - Mathematics (Additional) 2</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>EDUC90457 Learning Area Mathematics 1</td> <td>Not offered 2013</td> <td>12.50</td> </tr> <tr> <td>EDUC90458 Learning Area Mathematics 2</td> <td>Not offered 2013</td> <td>12.50</td> </tr> <tr> <td>EDUC90459 Learning Area Mathematics (Additional) 1</td> <td>Not offered 2013</td> <td>12.50</td> </tr> <tr> <td>EDUC90460 Learning Area Mathematics (Additional) 2</td> <td>Not offered 2013</td> <td>12.50</td> </tr> </tbody> </table>	Subject	Study Period Commencement:	Credit Points:	EDUC90457 Learning Area Mathematics 1	Not offered 2013	12.50	EDUC90458 Learning Area Mathematics 2	Not offered 2013	12.50	EDUC90459 Learning Area Mathematics (Additional) 1	Not offered 2013	12.50	EDUC90460 Learning Area Mathematics (Additional) 2	Not offered 2013	12.50
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<b>Core Participation Requirements:</b>	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															
<b>Contact:</b>	Education Student Centre 234 Queensberry Street Phone: +61 3 8344 8285															
<b>Subject Overview:</b>	<p>This subject provides an introduction to teaching Years 7-9 mathematics in Victorian schools. Teacher candidates will develop pedagogical content knowledge of the mathematics content strands in the Australian curriculum, especially related to Algebra, Number, Statistics and Probability. In particular, in Number, they will consider strategies for developing school students' understanding of place value, fractions, decimals and percentages.</p> <p>Teacher candidates will consider curriculum (AusVELS) documents, lesson planning, effective use of resources (e.g. textbooks, technology), assessment and the provision of a balanced curriculum incorporating the four proficiency strands in the Australian curriculum: Understanding, Fluency, Problem Solving and Reasoning.</p> <p>Teacher candidates will consider important pedagogical issues such as: questioning, selection of good examples, representations and models of mathematical ideas to widen their understanding of what good mathematics teaching should be at years 7-9.</p>															
<b>Objectives:</b>	<p>On completion of this subject teacher candidates will be able to:</p> <ul style="list-style-type: none"> <li># demonstrate understanding of school students' learning in years 7-9 mathematics;</li> <li># demonstrate knowledge of the Victorian years 7-9 mathematics curriculum;</li> </ul>															

	<ul style="list-style-type: none"> <li># demonstrate the ability to plan effective mathematics lessons incorporating good teacher questions and appropriate examples, explanations and tasks;</li> <li># critically analyse teaching resources;</li> <li># demonstrate a knowledge of how to assess mathematical understanding.</li> </ul> <p>The subject covers a range of the National Professional Standards for Teachers (for Graduate Teachers). In particular, the subject will contribute to students attaining the following standards:</p> <p>2.6 Information and Communication Technology (ICT)</p> <p>3.3 Use teaching strategies</p> <p>3.4 Select and use resources</p>
<b>Assessment:</b>	There are two assessment tasks: A report (2000 words equivalent) due mid-semester , 50% A written assignment on diagnosis and remediation of school students' mathematical misconceptions (2000 words) due end of semester, 50% There is 1 hurdle requirement: Teacher candidates will be required to demonstrate mastery in a mathematics test at Year 10 standard. They should prepare beforehand by working through current secondary school texts.
<b>Prescribed Texts:</b>	None
<b>Breadth Options:</b>	This subject is not available as a breadth subject.
<b>Fees Information:</b>	Subject EFTSL, Level, Discipline & Census Date, <a href="http://enrolment.unimelb.edu.au/fees">http://enrolment.unimelb.edu.au/fees</a>
<b>Generic Skills:</b>	<p>On completion of this subject, teacher candidates will have the knowledge, skills and understanding to enable them to:</p> <ul style="list-style-type: none"> <li># Be skilled communicators who can effectively articulate and justify their practices as knowledgeable agents of changes.</li> <li># Be flexible and able to adapt to change through knowing how to learn;</li> <li># Understand the significance of developing their practice on the basis of research evidence;</li> <li># Work in teams with skills in cooperation, communication and negotiation;</li> <li># Be independent of mind, responsible, resilient, self-regulating;</li> <li># Have a conscious personal and social values base.</li> </ul>
<b>Related Course(s):</b>	<p>Master of Teaching (Secondary)</p> <p>Master of Teaching (Secondary)</p>