

# Applied Mathematics

<b>Year and Campus:</b>	2015																					
<b>Coordinator:</b>	Dr Lawrence Reeves																					
<b>Contact:</b>	<p><b>Melbourne Graduate School of Science</b>  Faculty of Science  The University of Melbourne  Victoria 3010</p> <p>Tel: + 61 3 8344 6128  Fax: +61 3 8344 3351</p> <p>Web: <a href="http://graduate.science.unimelb.edu.au/">http://graduate.science.unimelb.edu.au/</a> (<a href="http://graduate.science.unimelb.edu.au/">http://graduate.science.unimelb.edu.au/</a>)</p>																					
<b>Overview:</b>	The Graduate Certificate allows students who have completed an undergraduate degree to refocus or expand their body of knowledge by completing the requirement of one of the undergraduate majors (or equivalent) in the Bachelor of Science not already completed. The Graduate Certificate provides a pathway to the Master of Science Streams.																					
<b>Learning Outcomes:</b>	<p>Students who complete the Graduate Certificate should:</p> <ul style="list-style-type: none"> <li># Demonstrate an independent approach to knowledge that uses rigorous methods of inquiry and appropriate theories and methodologies that are applied with intellectual honesty and a respect for ethical values;</li> <li># Apply critical and analytical skills and methods to the identification and resolution of problems;</li> <li># Act as informed and critically discriminating participants within the community of scholars, as citizens and in the work force;</li> <li># Communicate effectively;</li> <li># Commit to continuous learning;</li> <li># Be proficient in the use of appropriate modern technologies, such as the computer and other information.</li> </ul>																					
<b>Structure &amp; Available Subjects:</b>	Completion of 50 points of study at Level 3.																					
<b>Subject Options:</b>	<p><b>Subject prerequisites:</b> all three of MAST20009 Vector Calculus and MAST20026 Real Analysis and MAST20030 Differential Equations plus one of MAST20004 Probability or MAST20006 Probability for Statistics, or equivalents.</p> <p><b>Level 3</b></p> <p>Both of:</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>MAST30021 Complex Analysis</td> <td>Semester 1, Semester 2</td> <td>12.50</td> </tr> <tr> <td>MAST30028 Numerical and Symbolic Mathematics</td> <td>Semester 2</td> <td>12.50</td> </tr> </tbody> </table> <p>Plus at least one of:</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>MAST30001 Stochastic Modelling</td> <td>Semester 2</td> <td>12.50</td> </tr> <tr> <td>MAST30030 Applied Mathematical Modelling</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>MAST30031 Methods of Mathematical Physics</td> <td>Semester 2</td> <td>12.50</td> </tr> </tbody> </table> <p>Plus (if required as a fourth subject) any other third year level subject offered by the Department of Mathematics and Statistics</p>	Subject	Study Period Commencement:	Credit Points:	MAST30021 Complex Analysis	Semester 1, Semester 2	12.50	MAST30028 Numerical and Symbolic Mathematics	Semester 2	12.50	Subject	Study Period Commencement:	Credit Points:	MAST30001 Stochastic Modelling	Semester 2	12.50	MAST30030 Applied Mathematical Modelling	Semester 1	12.50	MAST30031 Methods of Mathematical Physics	Semester 2	12.50
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<b>Links to further information:</b>	<a href="http://graduate.science.unimelb.edu.au">http://graduate.science.unimelb.edu.au</a>
<b>Related Course(s):</b>	Graduate Certificate in Science