

<b>TITLE</b>	<b>Assessment Requirements for:</b> <b>UPRMTH401 Apply mathematical concepts to solve problems</b>
<b>PERFORMANCE EVIDENCE</b>	<p><i>The learner must show evidence of the ability to:</i></p> <ul style="list-style-type: none"> <li>- <i>complete activities outlined in the elements and performance criteria of this unit</i></li> <li>- <i>manage these activities and any contingencies in the context of the academic learning / work environment.</i></li> </ul> <p><i>There must be demonstrated evidence that the learner has completed the following:</i></p> <ul style="list-style-type: none"> <li>• Performed a broad spectrum of mathematical calculations</li> <li>• Applied mathematical concepts to solve routine and complex problems in different contexts - real world and/or simulations</li> <li>• Interpreted and investigated problems and formulated statements in mathematical language, in a range of contexts</li> <li>• Compiled and interpreted mathematical function graphs for specific mathematical purposes</li> <li>• Used mathematical tools, including software tools, to assist in solving problems</li> <li>• Communicated mathematical concepts/statements clearly in written and spoken form</li> </ul> <p>Note: If a specific volume or frequency is not stated, then the evidence must be provided at least once.</p>
<b>KNOWLEDGE EVIDENCE</b>	<p><i>The learner must be able to:</i></p> <ul style="list-style-type: none"> <li>• <i>demonstrate essential knowledge required to effectively undertake the activities outlined in the elements and performance criteria of this unit</i></li> <li>• <i>manage these activities and any contingencies in the context of the academic learning / work environment.</i></li> </ul> <p><i>This includes knowledge of:</i></p> <ul style="list-style-type: none"> <li>• Mathematical concepts / processes applicable to solving problems, including: <ul style="list-style-type: none"> <li>- Linear equations, inequalities and graphs</li> <li>- Quadratic equations and graphs</li> <li>- Functions and their inverses</li> <li>- Indices and logarithms</li> <li>- Sequences and series</li> <li>- Binomial theorem</li> <li>- Geometry</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>- Trigonometry</li> <li>- Rates of Change</li> <li>- Differential Calculus</li> <li>- Integration</li> <li>- Probability</li> <li>- Statistics</li> </ul> <ul style="list-style-type: none"> <li>• Mathematical reasoning, processes, methods/techniques and problem-solving strategies</li> <li>• Software applications/tools for mathematical applications and presentations</li> <li>• Terminology</li> </ul>
<p><b>ASSESSMENT CONDITIONS</b></p>	<p>A range of assessment methods must be used to assess both practical skills and knowledge.</p> <p><i>The range of assessment methods may be in the form of a selected combination from:</i></p> <ul style="list-style-type: none"> <li>• Short and extended exercises / questions</li> <li>• Computer based tasks / activities</li> <li>• Assignments</li> <li>• Practical assessment events (eg mathematical calculations and solving of real / simulated problems)</li> <li>• Workbook records</li> <li>• Development of draft electronic files and print copy (eg process and product calculations )</li> <li>• Group-based assessment events incorporating individual assessment of process/product</li> <li>• Individual, authenticated portfolio</li> <li>• Relevant and specific third party reports (eg from a supervisor) and/or testimonials</li> <li>• Authenticated reports of achievement in relevant courses or training sessions (RPL / Credit transfer)</li> </ul> <p>Skills must be demonstrated in the context of an actual or simulated academic workplace/learning environment with access to all relevant equipment and resources of that environment.</p>

	<p>Holistic/integrated assessment of relevant components within this enterprise unit and/or with other relevant units is recommended, where practicable.</p> <p>All assessment must be completed in accordance with relevant academic workplace/learning environment health and safety standards.</p> <p><b>Assessor Requirements:</b></p> <p>Assessors must satisfy assessor requirements in the <i>Standards for Registered Training Organisations (RTOs) 2015</i></p>
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