

Tranche 1 – Phase 3 – Initial Draft Course

General Mathematics Level 2

Total Responses = 8

Organisations represented	Group	Individual
7	5 (representing 28 individuals)	3

Focus Area and Key Features

Summary of key themes and way forward from feedback

Key themes	Years 9 to 12 Learning Response
19 individuals suggested the focus area section was appropriate.	Continue with course development as planned for this course to be Discipline-based subject.

Course Rationale and Description

Summary of key themes and way forward from feedback

Key themes	Years 9 to 12 Learning Response
<p>19 individuals identified that the rationale indicated why the course is needed.</p> <p>One individual stated that 'over 90%' of our current General Maths 2 students do not, and are not, interested in studying General Maths 3'.</p> <p>Another eight individuals suggested that 'only a small number of students use this course as a transition to the General 3 course'.</p>	Continue with course development as planned for this section.

Key themes	Years 9 to 12 Learning Response
<p>Eight individuals suggested the language used in the course description was too vague. However, most believed the course description gave a clear overview for learners.</p>	

Integration of General Capabilities

Summary of key themes and way forward from feedback

Key themes	Years 9 to 12 Learning Response
<p>12 individuals suggested the identified General Capabilities were not appropriate for the course and 18 suggested it was not clear how they were embedded.</p> <p>Of these responses, it was evident there was concern about teaching and assessing Ethical Understanding and Intercultural Understanding, particularly, as many felt they were not trained to do this.</p>	<p>Considering the proposed changes to eight (8) criteria in line with policy, the criteria will need to be reviewed.</p> <p>This will provide an opportunity to reconsider the inclusion of Ethical Understanding and Intercultural Understanding as embedded General Capabilities and to improve the explicit detail about the other included General Capabilities.</p>

Pathways

Summary of key themes and way forward from feedback

Key themes	Years 9 to 12 Learning Response
<p>26 individuals suggested there were no major pathways missing from the proposed course.</p> <p>One individual suggested many students who attain a 'C' rating in Year 10 Mathematics struggle with remembering anything for any period of time and would struggle to grasp the conceptual understanding of the course.</p>	<p>Continue with course development as planned, ensuring that the course document values the Years 9 to 12 Education Framework principles of excellence, support and achievement.</p>

Course Requirements

Summary of key themes and way forward from feedback

Key themes	Years 9 to 12 Learning Response
<p>26 individuals agreed the access requirements were clear and logical. 20 individuals also agreed the resource requirements were clear.</p> <p>Seven individuals questioned the requirement of graphics calculators for this course. They identified the benefit for students who would continue to General Mathematics 3 but did not believe the calculators should be a requirement for access to the course.</p> <p>18 individuals indicated the course requirements would not provide any potentially unnecessary barriers for teaching and learning.</p> <p>Eight individuals suggested they would need more funding at their school to enable access to computers.</p>	<p>Remove graphics calculators as a requirement for the course, but strongly encourage providers to make them (or computer-based graphing programs) available to students where possible when engaging with content such as solving simultaneous equations or calculating the power of a matrix.</p>

Course Structure, Delivery and Progression

Summary of key themes and way forward from feedback

Key themes	Years 9 to 12 Learning Response
<p>19 individuals agreed the course structure was clear and logical.</p>	<p>Review the language used in the developmental progression to remove any misleading or contradictory statements to the delivery sequence.</p>
<p>Of the above, six individuals indicated they believed a strong understanding of algebra would be required for all modules, and as such, whilst not prescribed it would make sense for Module 2 to be listed first.</p>	<p>Consider the order of the three listed modules and whether it may be appropriate to define that the current Module 2 is to be taught first.</p>

Key themes	Years 9 to 12 Learning Response
These same six individuals, and another four, believed the delivery sequence and developmental progressions were contradictory or misleading as effective developmental progress throughout a course would require modules being undertaken in a particular order.	
Five individuals queried what the Focus Area characteristics meant, but others believed it was clear how learners would engage with the characteristics of a discipline-based course.	Provide additional detail about focus area characteristics in supporting resources and professional learning.

Module Content

Summary of key themes and way forward from feedback

Key themes	Years 9 to 12 Learning Response
19 individuals agreed the key knowledge and skills were clear for each module.	Noted.
<p>Seven individuals suggested the inclusion of matrices is a major frustration as it leads nowhere for many of the students undertaking General Maths 2. It is considered far too abstract a concept for this course.</p> <p>These seven also indicated the inclusion of share market concepts, such as 'price to earnings ratio', is too abstract and suggested that teachers are not necessarily familiar with them and cannot teach them with any depth or insight.</p> <p>They asked whether there could be some more basic probability, sampling techniques or some other statistical skills that may be more relevant to students understanding of information presented in the media and in other disciplines?</p>	<p>Engage Critical Friends and Sponsor Schools to review the areas of concern regarding content in both this and other proposed courses and align to provide the best possible pathways suited to the Level of Complexity for each course.</p> <p>Align content to the Australian Curriculum framework: General Mathematics Units 1 and 2 and adjust according to Tasmanian context and feedback from stakeholders.</p>

Another four individuals identified the inclusion of probability would promote greater connection with the proposed General Maths 3 course.

Criteria and Standards

Summary of key themes and way forward from feedback

Key themes	Years 9 to 12 Learning Response
<p>Most individuals could not see a reason for focus criteria per module, meaning that criteria assessing processes such as communication and management of self and learning were only assessed at one point in the year.</p> <p>Similarly, most questioned the weighting of criteria between 'procedural fluency and performing mathematical techniques' and 'problem solving and reasoning'.</p> <p>Some individuals indicated certain elements would require too much teacher judgement and that concrete examples would be needed to differentiate between standards, or the elements would need to be reworked.</p>	<p>Considering the feedback received and the proposed changes to eight (8) criteria in line with policy, the criteria will need to be reviewed.</p> <p>Instances, where the language may require additional examples to assist teacher judgement will be reviewed to provide greater clarity.</p> <p>Engage Critical Friends and Sponsor Schools to review the areas of concern regarding criteria and standards in both this and other proposed courses. Also align to provide the best possible assessment of the learning outcomes that is aligned to the Level of Complexity for each course.</p>

Appendix I - Line of Sight

Summary of key themes and way forward from feedback

Key themes	Years 9 to 12 Learning Response
<p>19 individuals indicated the Line of Sight was clear, however, 10 others raised the concern that the weighting of criteria as described above was a significant shift from the current course.</p>	<p>Ensure the Line of Sight remains clear after reviewing the content, criteria and standards for Phase 4 of the course development process.</p>

Appendix 2 – Alignment to Curriculum Frameworks

Summary of key themes and way forward from feedback

Key themes	Years 9 to 12 Learning Response
<p>27 individuals indicated the alignment to the Australian Curriculum framework was useful.</p> <p>One individual did query why Tasmania assesses course content with vague criteria as opposed to the mechanisms of other jurisdictions.</p>	<p>Continue to refine the content to align to Level 2 complexity, and to best situate Tasmanian learners to complete the content of the Australian Curriculum General Mathematics Units 1 and 2.</p>

Appendix 3 – Work Requirements

Summary of key themes and way forward from feedback

Key themes	Years 9 to 12 Learning Response
<p>25 individuals indicated the Work Requirements were not appropriate for each module.</p> <p>Seven individuals clarified that the word limits were too high, citing the assessment tasks would take up too much of the course time and that teachers would need a range of resources/activities/tasks provided plus extensive professional learning.</p> <p>Another eight individuals indicated they did not believe there is enough time to teach students how to conduct investigations and that highly literate students would be advantaged.</p> <p>There were additional comments from five individuals questioning the high literacy component of the course stating the work requirements will have an impact on learners' ability to complete the course in their context.</p>	<p>Engage Critical Friends and Sponsor Schools to review the areas of concern regarding Work Requirements in both this and other proposed courses. Align to provide the best possible requirements that promote consistent and measurable assessment of the learning outcomes that are aligned to the level of complexity for each course.</p> <p>Consideration for the size, mode and timing of work requirements will be important to ensure students and teachers study/workload is fair and reasonable.</p> <p>An additional factor for consideration will include alignment with other jurisdictions work requirement expectations.</p>

Further Appendices

Summary of key themes and way forward from feedback

Key themes	Years 9 to 12 Learning Response
<p>13 individuals agreed the further appendices support the course document.</p> <p>Four individuals suggested the support appendices did not demonstrate how to achieve inclusion of General Capabilities or Cross-Curriculum Priorities.</p>	<p>Considering the proposed changes to eight (8) criteria in line with policy, the criteria will need to be reviewed.</p> <p>This will provide an opportunity to reconsider the inclusion of Ethical Understanding and Intercultural Understanding as embedded General Capabilities and to improve the explicit detail about the other included GCs.</p> <p>This will inform whether further support is required to support integration of the General Capabilities with course content and where this information would best be provided.</p>

Further Feedback and General Comments

Summary of key themes and way forward from feedback

Key themes	Years 9 to 12 Learning Response
<p>A total of nine individuals indicated concern about the timeline of implementing this course for teaching in 2022.</p>	<p>Amendments to the implementation timeline of proposed courses has been made in response to feedback received by Years 9 to 12 Learning.</p> <p>General Mathematics Level 2 is now proposed to be implemented in 2023.</p>