Name of Subject: Mathematics Pathways

Stage: 2

General information: Stage 2 Mathematics Pathways articulates with the Stage 1 Mathematics Pathways subject. It can be studied as a 10-credit subject or a 20-credit subject. Stage 2 Mathematics Pathways allows students to achieve the numeracy requirement in the SACE. Students who achieve a C grade or better in this subject meet the compulsory 10-credit numeracy requirement. In Stage 2 Mathematics Pathways, students have the opportunity to gain the knowledge, skills, and understanding required to apply Mathematics in different contexts, and to participate in a wide variety of problem-solving activities. The focus capabilities for this subject are communication, citizenship, personal development, work, and learning.

Content: The content may be negotiated with the students, and there may be a focus on different themes, topics, and/or contexts within any group. Teachers may:
- adapt or vary topics in the Stage 2 Mathematical Applications Subject Outline listed below:
  - Topic 1: Applied Geometry
  - Topic 2: Investment and Loans
  - Topic 3: Mathematics and Small Business
  - Topic 4: Matrices
  - Topic 5: Optimisation
  - Topic 6: Share Investments
  - Topic 7: Statistics and Working with Data
- develop new topics

Assessments: Students demonstrate evidence of their learning through the following assessment types:

<table>
<thead>
<tr>
<th>School-based Assessment</th>
<th>Weighting</th>
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<tbody>
<tr>
<td>Skills and Applications Tasks (Tests)</td>
<td>45%</td>
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<tr>
<td>Folio (Investigations)</td>
<td>25%</td>
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<tr>
<td>External Assessment</td>
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<tr>
<td>Investigation</td>
<td>30%</td>
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Special Information: Students will need to use electronic technology in this course. Scientific and/or Graphics calculators (Texas Instruments) are available for purchase through the College at the end of the academic year.

Preferred prerequisites: 20 credits at a minimum C level for any Stage One Mathematics subject. A C level or better for Stage One Mathematics Pathways will be an advantage. Investigations make up the major part of the assessment for this course and therefore students must have strong organisational skills and an industrious work ethic to cope with the demands of deadlines and drafting.