

2024 SOE MATH

COURSE	EXPRESS					NORMAL (ACADEMIC)					NORMAL (TECHNICAL)				
SUBJECTS OFFERED	Mathematics (Compulsory) Additional Math(Compulsory) Computing					Mathematics (Compulsory)					Mathematics (Compulsory)				
ASSESSMENT FORMAT	Mathematics:					Mathematics:					Mathematics:				
	Paper	Duration	Description	Marks	Weighting	Paper	Duration	Description	Marks	Weighting	Paper	Duration	Description	Marks	Weighting
	Paper 1	2 hours 15 minutes	There will be about 26 short answer questions. Candidates are required to answer <b>all</b> questions.	90	50%	Paper 1	2 hours	There will be about 23 short answer questions. Candidates are required to answer <b>all</b> questions.	70	50%	Paper 1	1 hour 30 minutes	There will be 11–13 short answer questions of 2–4 marks each, largely context-free and testing fundamental concepts and skills, followed by 2 longer questions of 6–8 marks, developed around a context.  Candidates are required to answer all questions which will cover topics from the following strands <ul style="list-style-type: none"><li>Number and Algebra</li><li>Geometry and Measurement</li></ul>	50	50%
	Paper 2	2 hours 15 minutes	There will be 9 to 10 questions of varying marks and lengths. The last question in this paper will focus specifically on applying mathematics to a real-world scenario. Candidates are required to answer <b>all</b> questions.	90	50%	Paper 2	2 hours	Section A: There will be 9 – 10 questions of varying marks and lengths.  The last question in this section will focus specifically on applying mathematics to a real-world scenario. Candidates are required to answer <b>all</b> questions.  Section B: There will be 2 questions of which candidates will be required to answer <b>only one</b> . <ul style="list-style-type: none"><li>The questions in this section will be based on the underlined content and there will be one question from the 'Geometry and Measurement' strand and one from the 'Statistics and Probability' strand.</li><li>Each question carries the same number of marks, that is, either 7 or 8 marks.</li></ul>	70	50%	Paper 2	1 hour 30 minutes	There will be 11–13 short answer questions of 2–4 marks each, largely context-free and testing fundamental concepts and skills, followed by 2 longer questions of 6–8 marks, developed around a context.  Candidates are required to answer all questions which will cover topics from the following strands <ul style="list-style-type: none"><li>Number and Algebra</li><li>Statistics and Probability</li></ul>	50	50%

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SUBJECTS OFFERED	Mathematics (Compulsory) Additional Math (Compulsory) Computing (SOE Option)	Mathematics (Compulsory)	Mathematics (Compulsory)															
ASSESSMENT FORMAT	<div>Additional Mathematics:</div> <table><tr><th>Paper</th><th>Duration</th><th>Description</th><th>Marks</th><th>Weighting</th></tr><tr><td>Paper 1</td><td>2 hours 15 minutes</td><td>There will be 12 – 14 questions of varying marks and lengths, up to 10 marks per question. Candidates are required to answer <b>ALL</b> questions.</td><td>90</td><td>50%</td></tr><tr><td>Paper 2</td><td>2 hours 15 minutes</td><td>There will be 9 – 11 questions of varying marks and lengths, up to 12 marks per question. Candidates are required to answer <b>ALL</b> questions.</td><td>90</td><td>50%</td></tr></table>	Paper	Duration	Description	Marks	Weighting	Paper 1	2 hours 15 minutes	There will be 12 – 14 questions of varying marks and lengths, up to 10 marks per question. Candidates are required to answer <b>ALL</b> questions.	90	50%	Paper 2	2 hours 15 minutes	There will be 9 – 11 questions of varying marks and lengths, up to 12 marks per question. Candidates are required to answer <b>ALL</b> questions.	90	50%	Nil	Nil
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ASSESSMENT FORMAT	<div>Computing:</div> <table><tr><th>Paper</th><th>Mode</th><th>Duration</th><th>Weighting</th><th>Marks</th><th>Format</th><th>Modules Assessed</th></tr><tr><td>1</td><td>Written</td><td>2 h</td><td>60%</td><td>80</td><td><div>A mixture of<ul style="list-style-type: none"><li>Multiple choice questions (single- and multiple-answer)</li><li>Short-answer questions</li><li>Matching questions</li><li>Cloze passages</li><li>Structured questions</li></ul></div></td><td>All the five modules</td></tr><tr><td>2</td><td>Lab-based</td><td>2 h 30 m</td><td>40%</td><td>70</td><td><div><ul style="list-style-type: none"><li>One question on Spreadsheets</li><li>Four to five questions on Programming</li></ul></div></td><td><div>Module 2: Algorithms and Programming</div><div>Module 3: Spreadsheets</div></td></tr></table>	Paper	Mode	Duration	Weighting	Marks	Format	Modules Assessed	1	Written	2 h	60%	80	<div>A mixture of<ul style="list-style-type: none"><li>Multiple choice questions (single- and multiple-answer)</li><li>Short-answer questions</li><li>Matching questions</li><li>Cloze passages</li><li>Structured questions</li></ul></div>	All the five modules	2	Lab-based	2 h 30 m	40%	70	<div><ul style="list-style-type: none"><li>One question on Spreadsheets</li><li>Four to five questions on Programming</li></ul></div>	<div>Module 2: Algorithms and Programming</div> <div>Module 3: Spreadsheets</div>	Nil	Nil
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	Additional Math	Computing
<b>CRITERIA, DESIRED DISPOSITIONS</b>	<p><u>Disposition:</u> For Student who have the interest and ability, to learn more mathematics so that they can pursue mathematics or mathematics-related courses of study in the next stage of education</p>	<p><u>Criteria:</u> <u>Express:</u></p> <ul style="list-style-type: none"> <li>• Displayed interests &amp; enthusiasm in programming</li> <li>• Good Pass in Sec 2 Mathematics &amp; EL</li> <li>• Based on academic merit and available vacancies</li> </ul>
<b>SKILLS &amp; COMPETENCIES TO BE DEVELOPED</b>	<p>Students to be able to</p> <ul style="list-style-type: none"> <li>• develop critical thinking, reasoning, communication, application and metacognitive skills through a mathematical approach to problem solving</li> <li>• connect ideas within mathematics and between mathematics and other subjects through applications of mathematics</li> <li>• build confidence and foster interest in mathematics.</li> </ul>	<p>Students to be able to</p> <ul style="list-style-type: none"> <li>• Apply logical reasoning and algorithmic thinking in analysing problem situations and developing solutions;</li> <li>• construct simple programs through the use of appropriate programming language(s);</li> <li>• Understand how and where information communications technology (ICT) is used in daily life;</li> <li>• Understand and explain the ethical, social and economic issues associated with the use of ICT.</li> </ul>

	Additional Math	Computing
<b>POST-SECONDARY OPPORTUNITIES</b>	<ul style="list-style-type: none"> <li>• Gives student a better foundation to offer H2 Math at JC</li> <li>• Provides a good head start for students who are passionate about STEM &amp; STEM related courses in Poly</li> </ul>	<ul style="list-style-type: none"> <li>• Gives students a good foundation for Computing/IT related courses in JC or Poly</li> <li>• Providing a good head start for students interested in pursuing a career in data analytics/Fintech</li> </ul>