## 2024 SOE MATH



COURSE	EXPRESS						NORMAL (ACADEMIC)						NORMAL (TECHNICAL)			
SUBJECTS OFFERED	Mathematics (Compulsory) Additional Math Computing						Mathematics (Compulsory) Additional Math (By Offer)					Mathematics (Compulsory)				
	Mathematics:					Mat	hem	atics:			Mathematics:					
ASSESSMENT	Paper	Duration	Description	Marks	Weighting	Paper	Duration	Description	Marks	Weighting	Paper	Duration	Description	Marks	Weighting	
FORMAT	Paper 1	2 hours 15 minutes 2 hours 15 minutes	There will be about 26 short answer questions. Candidates are required to answer all questions.  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 all questions.	90	50%	Paper 1	2 hours	There will be about 23 short answer questions. Candidates are required to answer all questions.  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 all questions.  Section B: There will be 2 questions of which candidates will be required to answer only one.  • 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.  • Each question carries the same number of marks, that	70	50%	Paper 1 Paper 2	1 hour 30 minutes 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  Number and Algebra  Geometry and Measurement  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  Number and Algebra	50	50%	
								is, either 7 or 8 marks.					Statistics and Probability			



COURSE	EXPRESS						NO	RMAL (ACADEN	NORMAL (TECHNICAL)		
SUBJECTS OFFERED	Mathematics (Compulsory) Additional Math (SOE Option) Computing (SOE Option)							natics (Compulsory) nal Math (By Offer)	Mathematics (Compulsory)		
	Additional Mathematics:				Addi	tional	Mathematics:				
ASSESSMENT	Paper	Duration	Description	Marks	Weighting	Paper	Duration	Description	Marks	Weighting	
FORMAT	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 1	1 hour 45 minutes	There will be 13–15 questions of varying marks and lengths.  Candidates are required to answer ALL questions.	70	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%	Paper 2	1 hour 45 minutes	There will be 8–10 questions of varying marks and lengths.  Candidates are required to answer ALL	70	50%	
								questions.			

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COURSE	EXPRESS							NORMAL (ACADEMIC)	NORMAL (TECHNICAL)		
SUBJECTS OFFERED						ry)		Mathematics (Compulsory) Additional Math (By Offer)	Mathematics (Compulsory)		
	Com	Computing:									
ASSESSMENT	Paper	Mode	Duration	Weighting	Marks	Format	Modules Assessed				
FORMAT	1	Written	2 h	70%	80	A mixture of  Short answer questions  Matching questions  Cloze passage  Structured questions	All the four modules				
	2	Lab- based	2 h 30 min	30%	50	4 compulsory structured questions  Use of Spreadsheet functions and features  Refinement of program  Debugging of program  Development of program with no more than 40 lines of code  Development of program will carry 20 marks. The remaining three questions average 10 marks.  A quick reference for Python will be provided for candidates.	Unit 1.1 Data Management from module 1 Module 4: Programming				

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	Additional Math	Computing
CRITERIA, DESIRED DISPOSITIONS	Criteria: Express : A good Pass in Sec 2 Math Normal(A): Top 15% in cohort for Math  Disposition: 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	<ul> <li>Criteria:</li> <li>Express:</li> <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>
SKILLS & COMPETENCIES TO BE DEVELOPED	<ul> <li>Students to be able to</li> <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>	<ul> <li>Students to be able to</li> <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)6 is used in daily life;</li> <li>Understand and explain the ethical, social and economic issues associated with the use of ICT.</li> </ul>

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	Additional Math	Computing
POST-SECONDARY OPPORTUNITIES	<ul> <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> <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>