

Mathematics AS level – Medium Term Plan – (2016 - 2017)

Week beginning		Topics/Assessment objectives to be covered in class	Resources	Flip tasks	Consolidation
5 th Sept 2016	Core1 Module: Decision1 Module:	<ul style="list-style-type: none"> • Surds, Indices • Prims Algorithm 	Prims Algorithm - from diagram & matrix worksheet	Review summer holiday tasks	C1 Textbook(Issued) - Chapter 1, page 1-14 hegartymaths.com - Students to review Prims Algorithm and complete tutorial questions
12 th Sept 2016	Core1 Module: Decision1 Module:	<ul style="list-style-type: none"> • Linear Simultaneous Equations • Kruskals Algorithm 	Kruskals Algorithm - worksheet	C1 Booklet - Students to work on task 1 (Surds, Indices, Simultaneous Equations) and hand in for assessment. Marked work will then be improved upon through responding to specific feedback and completing corrections. See booklet for details and specific dates.	C1 Textbook(Issued) - Chapter 3, page 27-31 hegartymaths.com - Students to review Prims Algorithm and complete tutorial questions
19 th Sept 2016	Core1 Module: Decision1 Module:	<ul style="list-style-type: none"> • Differentiation, Integration, • Sorting Algorithms - Quick Sort, Bubble Sort, Binary Search 	Differentiation by rule - worksheet Sorting - worksheet	D1 Booklet - Students to work on task 1 (Prims & Kruskals) and hand in for assessment. Marked work will then be improved upon through responding to specific feedback and completing corrections. See booklet for details and specific dates.	C1 Textbook(Issued) - Chapters 7&8, page 112-125 & page 133-142 hegartymaths.com - Students to review Quick Sort, Bubble Sort, Binary Search Algorithms and complete tutorial questions
26 th Sept 2016	Core1 Module: Decision1 Module:	<ul style="list-style-type: none"> • Equation of a Tangent/Normal • Bin Packing Algorithms: First-fit, First-fit decreasing, Full Bin 	Differentiation finding Gradients - worksheet Packing - worksheet		C1 Textbook(Issued) - Chapter 7, page 127-132 hegartymaths.com - Students to review Bin Packing Algorithms and complete tutorial questions
3 rd Oct 2016	Core1 Module: Decision1 Module:	<ul style="list-style-type: none"> • Using b^2-4ac • Bipartite Graphs 	Bipartite graphs - powerpoint Maximum matchings - powerpoint	C1 Booklet - Students to work on task 2 (Differentiation, Integration, Equation of a Tangent/Normal) and hand in for assessment. Marked work will then be improved upon through responding to specific feedback and completing corrections. See booklet for details and specific dates.	C1 Textbook(Issued) - Chapter 2, page 15-26 hegartymaths.com - Students to review Bipartite Graphs and complete tutorial questions
10 th Oct 2016	Core1 Module: Decision1 Module:	<ul style="list-style-type: none"> • Graphical Transformations • Dijkstras Algorithm 	Dijkstras - worksheet	D1 Booklet - Students to work on task 2 (Sorting, Bin Packing & Bipartite Graphs) and hand in for assessment. Marked work will then be improved upon through responding to specific feedback and	C1 Textbook(Issued) - Chapter 4, page 41-68

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				completing corrections. See booklet for details and specific dates.	hegartymaths.com - Students to review Dijkstras Algorithm and complete tutorial questions
17 th Oct 2016	<p><u>Core1 Module:</u></p> <p><u>Core2 Module:</u></p> <p><u>Decision1 Module:</u></p>	<ul style="list-style-type: none"> Completing the Square C2 Algebra Route Inspection Algorithm 	Route Inspection - worksheet		<p>C1 Textbook(Issued) -</p> <p>C2 Textbook(Issued) -</p> <p>hegartymaths.com - Students to review Route Inspection Algorithm and complete tutorial questions</p>

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31 st Oct 2016	<p><u>Core1 Module:</u></p> <p><u>Core2 Module:</u></p> <p><u>Decision1 Module:</u></p>	<ul style="list-style-type: none"> Functions Route Inspection Algorithm (closed paths and other special cases) 		C1 Booklet - Students to work on task 3 (Graphical Transformations & Completing the Square) and hand in for assessment. Marked work will then be improved upon through responding to specific feedback and completing corrections. See booklet for details and specific dates.	<p>C1 Textbook(Issued) -</p> <p>C2 Textbook(Issued) -</p>
7 th Nov 2016	<p><u>Core1 Module:</u></p> <p><u>Core2 Module:</u></p> <p><u>Decision1 Module:</u></p>	<ul style="list-style-type: none"> Applying Differentiation & Integration to problems Binomial Expansion Precedence Tables & Activity Networks 		D1 Booklet - Students to work on task 3 (Dijkstras & Route Inspection) and hand in for assessment. Marked work will then be improved upon through responding to specific feedback and completing corrections. See booklet for details and specific dates.	<p>C1 Textbook(Issued) -</p> <p>C2 Textbook(Issued) -</p> <p>hegartymaths.com - Students to review Precedence Tables and Activity Networks and complete tutorial questions</p>
14 th Nov 2016	<p><u>Core1 Module:</u></p> <p><u>Core2 Module:</u></p> <p><u>Decision1 Module:</u></p>	<ul style="list-style-type: none"> Applying Differentiation & Integration to problems Iterative Formulae Forward Pass & Backward Pass 		C2 Booklet - Students to work on task 1 (Algebra, Functions & Binomial Expansion) and hand in for assessment. Marked work will then be improved upon through responding to specific feedback and completing corrections. See booklet for details and specific dates.	<p>C1 Textbook(Issued) -</p> <p>C2 Textbook(Issued) -</p> <p>hegartymaths.com - Students to review Activity Networks (forward and backwards passes) and complete tutorial questions</p>

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21 st Nov 2016	<p><u>Core1 Module:</u></p> <p><u>Core2 Module:</u></p> <p><u>Decision1 Module:</u></p>	<ul style="list-style-type: none"> Graphical Transformations C2 Differentiation Techniques Gantt Charts & Schedules 		<p>C1 Booklet - Students to work on task 4 (Applying Differentiation, Integration, Graphical Transformations & Iterative Formulae) and hand in for assessment. Marked work will then be improved upon through responding to specific feedback and completing corrections. See booklet for details and specific dates.</p>	<p>C1 Textbook(Issued) -</p> <p>C2 Textbook(Issued) -</p> <p>hegartymaths.com - Students to review Gantt Charts & Schedules and complete tutorial questions</p>
28 th Nov 2016	<p><u>Core1 Module:</u></p> <p><u>Core2 Module:</u></p> <p><u>Decision1 Module:</u></p>	<ul style="list-style-type: none"> APs Coordinate Geometry Formulating as a Linear Programming Problem 		<p>D1 Booklet - Students to work on task 4 (Gantt) and hand in for assessment. Marked work will then be improved upon through responding to specific feedback and completing corrections. See booklet for details and specific dates.</p>	<p>C1 Textbook(Issued) -</p> <p>C2 Textbook(Issued) -</p> <p>hegartymaths.com - Students to review Linear Programming 4 & Linear Programming 5 (Formulating a Task as a Linear Programming Graphs) and complete tutorial questions</p>
5 th Dec 2016	<p><u>Core1 Module:</u></p> <p><u>Core2 Module:</u></p> <p><u>Decision1 Module:</u></p>	<ul style="list-style-type: none"> Coordinate Geometry C2 Integration Techniques Drawing Linear Programming Graphs and Shading OUT Regions 		<p>C2 Booklet - Students to work on task 2 (Differentiation & Coordinate Geometry) and hand in for assessment. Marked work will then be improved upon through responding to specific feedback and completing corrections. See booklet for details and specific dates.</p>	<p>C1 Textbook(Issued) -</p> <p>C2 Textbook(Issued) -</p> <p>hegartymaths.com - Students to review Linear Programming 1 (Drawing Linear Programming Graphs) Linear Programming 2 (Finding the points where lines intersect), Linear Programming 3 (Drawing the objective line) and complete tutorial questions</p>
12 th Dec 2016	<p><u>Core1 Module:</u></p> <p><u>Core2 Module:</u></p> <p><u>Decision1 Module:</u></p>	<ul style="list-style-type: none"> C1 Revision C2 Integration Techniques Point Testing and Objective Line Methods 		<p>C1 Booklet - Students to work on task 5 (APs & Coordinate Geometry) and hand in for assessment. Marked work will then be improved upon through responding to specific feedback and completing corrections. See booklet for details and specific dates</p>	<p>C2 Textbook(Issued) -</p> <p>hegartymaths.com - Students to review Linear Programming 7 (Point Testing) and Linear Programming 6 (Objective Line Method) and complete tutorial questions</p>

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Xmas Holiday

- C1 Revision

Mock Week

Mock Week

23 rd Jan 2017	<p><u>Core1 Module:</u></p> <p><u>Core2 Module:</u></p> <p><u>Decision1 Module:</u></p>	<ul style="list-style-type: none"> • C1 Revision • C2 Integration Techniques • Finding Integer Values for Solutions to Linear Programming Problems 	C1 Past Papers	<p>D1 Booklet - Students to work on task 5 (Linear Programming) and hand in for assessment. Marked work will then be improved upon through responding to specific feedback and completing corrections. See booklet for details and specific dates.</p>	C2 Textbook(Issued) - hegartymaths.com - Students to review Linear Programming 8 (Finding Integer Value solutions to Linear Programming Problems) and complete tutorial questions
30 th Jan 2017	<p><u>Core1 Module:</u></p> <p><u>Core2 Module:</u></p> <p><u>Decision1 Module:</u></p>	<ul style="list-style-type: none"> • C1 Revision • GPs 	C1 Past Papers D1 Practice Questions Booklet	<p>C2 Booklet - Students to work on task 3 (Integration) and hand in for assessment. Marked work will then be improved upon through responding to specific feedback and completing corrections. See booklet for details and specific dates.</p>	C2 Textbook(Issued) - D1 Practice Questions Booklet - Students to complete the past paper questions (Prims & Kruskals page)
6 th Feb 2017	<p><u>Core1 Module:</u></p> <p><u>Core2 Module:</u></p> <p><u>Decision1 Module:</u></p>	<ul style="list-style-type: none"> • Introducing Logs 	C1 Past Papers	<p>C1 Booklet - Students to work on task 6 (Revision) and hand in for assessment. Marked work will then be improved upon through responding to specific feedback and completing corrections. See booklet for details and specific dates.</p>	C2 Textbook(Issued) -

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20 th Feb 2017	<p><u>Core1 Module:</u></p> <p><u>Core2 Module:</u></p> <p><u>Decision1 Module:</u></p>	<ul style="list-style-type: none"> Using Rules of Logs 	C1 Past Papers	<p>examsolutions.com - Students to review their C1 booklet task 6 by watching video tutorials for the past paper questions they need to correct</p> <p>D1 Booklet - Students to work on task 6 (Past Paper Revision questions) and hand in for assessment. Marked work will then be improved upon through responding to specific feedback and completing corrections. See booklet for details and specific dates.</p>	C2 Textbook(Issued) -
27 th Feb '17	<p><u>Core1 Module:</u></p> <p><u>Core2 Module:</u></p> <p><u>Decision1 Module:</u></p>	<ul style="list-style-type: none"> Introducing Radians 	C1 Past Papers	<p>C2 Booklet - Students to work on task 4 (Geometric Sequences, Logs & Exponentials) and hand in for assessment. Marked work will then be improved upon through responding to specific feedback and completing corrections. See booklet for details and specific dates.</p>	C2 Textbook(Issued) -
6 th Mar 2017	<p><u>Core1 Module:</u></p> <p><u>Core2 Module:</u></p> <p><u>Decision1 Module:</u></p>	<ul style="list-style-type: none"> Sine Rule/Cosine Rules 	C1 Past Papers	<p>C1 Booklet - Students to work on task 7 (Past Paper) and hand in for assessment. Marked work will then be improved upon through responding to specific feedback and completing corrections. See booklet for details and specific dates.</p>	C2 Textbook(Issued) -
13 th Mar 2017	<p><u>Core1 Module:</u></p> <p><u>Core2 Module:</u></p> <p><u>Decision1 Module:</u></p>	<ul style="list-style-type: none"> $\sin^2x + \cos^2x = 1$ $\frac{\sin x}{\cos x} = \tan x$ 	C1 Past Papers	<p>examsolutions.com - Students to review their C1 booklet task 7 by watching the video tutorials for the questions they need to correct</p> <p>D1 Booklet - Students to work on task 7 (Past Paper Revision questions) and hand in for assessment. Marked work will then be improved upon through responding to specific feedback and completing corrections. See booklet for details and specific dates.</p>	C2 Textbook(Issued) - examsolutions.com

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27 th Mar 2017	<p><u>Core1 Module:</u></p> <p><u>Core2 Module:</u></p> <p><u>Decision1 Module:</u></p>	<ul style="list-style-type: none"> 	C1 Past Papers	<p>C1 Booklet - Students to work on task 8 (Past Paper) and hand in for assessment. Marked work will then be improved upon through responding to specific feedback and completing corrections. See booklet for details and specific dates.</p>	examsolutions.com
<h2>Easter Holiday</h2>					
17 th April 2017	<p><u>Core1 Module:</u></p> <p><u>Core2 Module:</u></p> <p><u>Decision1 Module</u></p>	<ul style="list-style-type: none"> 	C1 Past Papers	<p>examsolutions.com - Students to review their C1 booklet task 8 by watching the video tutorials for the questions they need to correct</p> <p>D1 Booklet - Students to work on task 8 (Past Paper Revision questions) and hand in for assessment. Marked work will then be improved upon through responding to specific feedback and completing corrections. See booklet for details and specific dates.</p>	
24 th April 2017	<p><u>Core1 Module:</u></p> <p><u>Core2 Module:</u></p> <p><u>Decision1 Module:</u></p>	<ul style="list-style-type: none"> 	C1 Past Papers	<p>C2 Booklet - Students to work on task 6 (Past paper) and hand in for assessment. Marked work will then be improved upon through responding to specific feedback and completing corrections. See booklet for details and specific dates.</p>	examsolutions.com
1 st May 2017			C1 Past Papers	<p>examsolutions.com - Students to review their C2 booklet task 6 by watching the video tutorials for the questions they need to correct</p>	examsolutions.com

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				C1 Booklet - Students to work on task 9 (Past paper) and hand in for assessment. Marked work will then be improved upon through responding to specific feedback and completing corrections. See booklet for details and specific dates.	
8 th May 2017	<u>Core1 Module:</u> <u>Core2 Module:</u> <u>Decision1 Module:</u>	•	C1 Past Papers	examsolutions.com - Students to review their C1 booklet task 9 by watching the video tutorials for the questions they need to correct D1 Booklet - Students to work on task 9 (Past Paper Revision questions) and hand in for assessment. Marked work will then be improved upon through responding to specific feedback and completing corrections. See booklet for details and specific dates.	
15 th May 2017	<u>Core1 Module:</u> <u>Core2 Module:</u> <u>Decision1 Module</u>	•	C1 Past Papers	C2 Booklet - Students to work on task 7 (Past paper) and hand in for assessment. Marked work will then be improved upon through responding to specific feedback and completing corrections. See booklet for details and specific dates.	examsolutions.com
22 nd May 2017	<u>Core1 Module:</u> <u>Core2 Module:</u> <u>Decision1 Module:</u>	•	C1 Past Papers	examsolutions.com - Students to review their C2 booklet task 7 by watching the video tutorials for the questions they need to correct	examsolutions.com

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