

<h2>Further Mathematics</h2>	
Exam Board	Edexcel
Course Entry Criteria	8 in GCSE Mathematics
Essential skills	The emphasis at A level is on algebra: its manipulation, its use in representing problems and its relationships with graphs.
Year 12	<p>All Year 12 Mathematicians take courses involving pure and applied mathematics. In addition, Further Mathematicians take an extra pure unit (FP1) and an extra applied unit in decision mathematics. Each module has equal weighting and is tested with a 1 ½ hour examination paper.</p> <p>For information about Core Mathematics and Statistics, please consult the Mathematics page.</p> <p>FP1 extends Pure Mathematics to complex numbers and matrices. Decision Mathematics considers problem solving using algorithms and their application in the real world.</p>
Year 13	<p>All Year 13 Mathematicians students take A2 Mathematics covering all of the AS Mathematics course but takes the course further, studying the material in more depth. For information about these units, please consult the Mathematics page.</p> <p>Further Mathematicians also take a second Mechanics unit (M2) alongside the Decision unit studied in Year 12. Students also take two further pure modules (FP1 and FP2). As before, each module has equal weighting and is tested with a 1 ½ hour examination paper.</p>
University requirements	<p>Typical grade requirements to study a Mathematics degree are as follows:</p> <p>Oxbridge: A* A* A</p> <p>Russell Group: A* A A to A A B</p> <p>Non Russell Group: A B B</p>
Related courses and careers	Physics, Chemistry, Computing, Economics, Music Technology, Engineering, Architecture, Finance, Insurance, Software Design, Scientist, Armed Forces, Police
Other Details	<p>You will be asked to sit an assessment on <b>Saturday 21<sup>st</sup> January 2017</b>.</p> <p>The assessment does not require any knowledge of algebra beyond GCSE but it does assess your ability to use it and apply it in a way that will become routine at AS. It will assess your ability to link through problems and select appropriate techniques.</p> <p>The assessment is one hour long and you will not be allowed a calculator. Topics included are:</p> <ul style="list-style-type: none"> <li>• Algebraic fractions</li> <li>• Graph sketching</li> <li>• Simultaneous equations including quadratic ones</li> <li>• Solving quadratic equations by factorisation or completing the square</li> <li>• Surds</li> </ul>