

A Level

Maths & Further Maths

Exam board TBC



Course Content

1. AS Mathematics

The course includes a systematic study of graphs and also extends our ideas of trigonometry. Naturally we meet more involved equations which require new, more inventive approaches. We will also meet logarithmic functions and the vital theory of calculus. It is calculus that allows us to effectively model continuous change in the real world. We will also use mechanics and statistics to model real world situations. All of these require good algebraic and problem solving skills, which are developed throughout each topic.

2. AS Mathematics & AS Further Mathematics

This is TWO subject choices; double the number of lessons and leads to two A levels. *Further Maths cannot be studied without Maths.* You will meet new mathematical objects such as matrices and complex numbers. These behave a little differently to many mathematical objects we are used to. The course includes a new coordinate system, which naturally leads to unfamiliar curves, and new functions. We also take a more rigorous approach to proving mathematical results.

Methods of Teaching

Lessons will be varied, mixing investigations, class discussions, checking progress with mini-white boards and the practice that makes perfect. The graphical calculator offers tools for deepening our understanding, checking our working and saving us time. You will have opportunities to develop your calculator skills in lessons. Your teacher will show you how to make effective use of the department intranet. The subject content will be assessed regularly by means of tests and assignments.

There is a well-resourced workshop, available every lunchtime for students, to gain additional support. Teachers and upper sixth students will be present at each session to offer you help.



Mathematics

Methods and Patterns of Assessment

There is no coursework in either Maths or Further Maths courses.

The external exams are in May/June at the end of the course.

Financial Implications

You will need to purchase your own textbooks, stationery and a graphical calculator. The College sells the Casio fx9750 model for about £50. Where there is difficulty meeting these costs, the College has a Student Support Fund.

Career Possibilities

A pass in A level Mathematics provides a sound basis for many degree courses but is essential for those studying courses with a high level of mathematical content, e.g. Mathematics, Statistics, Engineering and Economics.

Students wishing to apply for Maths, Engineering, Computer Science, Physics at the most selective universities would also find an A level in Further Maths either essential or advantageous.

You will be given an extensive task to complete after Taster Day in order to practise the appropriate skills before you begin the Maths course.

If you choose not to continue this subject into the second year, you are able to sit an AS exam at the end of the first year.

Minimum Entry Requirements

5 GCSEs at grade A* - C, including English, plus a grade 7 or above in Maths.

Good algebraic skills are essential.

Further Maths will also require a real love of the subject.

Apply online: www.psc.ac.uk/apply t: 01962 857555 e: admissions@psc.ac.uk

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