

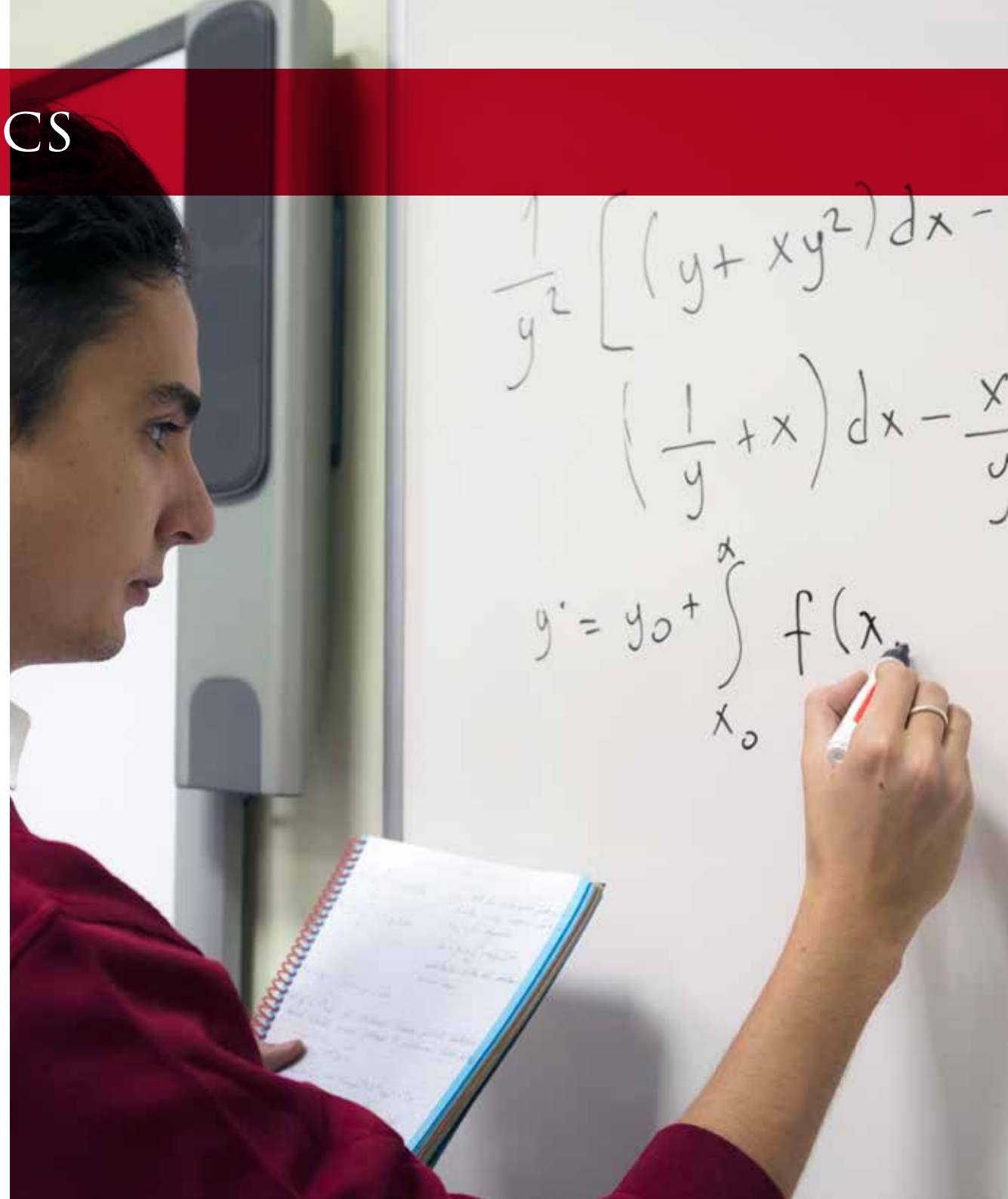
A LEVEL MATHEMATICS

Mathematics is a branch of abstract reasoning that is curiously useful for understanding the universe: the numbers, operations and constructions of mathematics exist only in their purest form in the mind of the mathematician but understanding their behaviour is a powerful tool for solving problems in the real world. Mathematics is a discipline in which problem solving, lateral thinking and imaginative reasoning are as valuable as a facility for careful and accurate calculation. It will appeal to those students who want to be sure that their knowledge is dependent neither on time nor location and who want the question “but why is that so?” to lead to a satisfying answer.

The best reason for taking mathematics at A Level is that you will enjoy studying it: you will find satisfaction in stretching your intellect to understand abstract ideas and tackle taxing problems. It is also a subject with wide utility and is a requirement for further study in a variety of areas. Techniques covered include algebra, geometry, trigonometry and calculus - the fundamental building-blocks of the subject.

COURSE STRUCTURE

YEAR	TITLE	CONTENT	WEIGHTING
Year 1	xxxxxx	xxxxxxx	xx%
Year 2	xxxxxxx	xxxxxx	xx%



COURSE OUTLINE

This is a 2 year linear course made up of 4 Core Maths modules and 2 'optional' modules.

In Year 12 you will study key elements of core maths across algebra, geometry and number. You will also study a 3rd module, Decision.

In Year 13 you will further develop the modules studied in Year 12 and study a third 'optional' area. Graphic calculators are allowed on this course, unless doing Statistics with the optional coursework. All examinations are taken in Year 13.

- Option to study Further Mathematics as an additional A Level qualification if successful results in Pure modules are achieved. This would require additional commitment in Year 13 and will only be offered to students demonstrating high levels of excellence.

ENTRY REQUIREMENTS

- Grade Point 6 (Grade B) and above will be the minimum requirement but if competition to study mathematics is high, Grade Point 7 (Grade A) may be required
- Grade Point 6 (Grade B) and above in English and Science are necessary



So if a man's wit be wandering, let him study the mathematics; for in demonstrations, if his wit be called away never so little, he must begin again.

- Francis Bacon, Of Studies



PROGRESSION ROUTES

- A Level combinations are dependent upon your chosen career. Mathematics is generally well suited to the sciences, computing, further maths and economics.
- Mathematics A level will open many doors and provide you with a wide range of options for your future and increase your chances of success.
- It will be ideal if you are studying architecture, design, physics, engineering, medicine, business and economics and many other degrees at university.

RECOMMENDED EXTRA CURRICULAR ACTIVITIES

- Home learning is a vital element of the programme of study
- Attendance to in school revision master classes will be compulsory
- REACH club CHANGE NAME FOR Sixth Form will be provided for exam practice and further development
- MATLAB is a useful programme to use when studying Core
- GEOGEBRA is a useful programme to use when studying Geometry
- STATGRAPHICS, LINUX and C PROGRAMMING will also be useful

RECOMMENDED READING LIST

The Laws of Thermodynamics; P Atkins
 Linear Algebra and Geometry; D Smart
 Numbers and Functions; R P Burn
 Vector Analysis and an Introduction to Tensor Analysis; M R Spiegel

TOP 5 UNIVERSITIES CURRENTLY FOR THIS SUBJECT

1. Cambridge
2. Oxford
3. London
4. St. Andrews
5. Warwick

COURSE/QUALIFICATION DETAILS

Qualification: A level mathematics
 Board: AQA
 Code: Awaiting accreditation at the time of publication
 currently 6360 (from 2014 onwards)
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