A LEVEL MATHS

Awarding Body: EDEXCEL

https://qualifications.pearson.com/en/qualifications/edexcel-a-levels/mathematics-2017.html

FORTITUDINE CRESCAMUS

Examinations

Three two-hour exams are sat at the end of Y13:

- Paper 1: Pure Mathematics 1
- Paper 2: Pure Mathematics 2
- Paper 3: Statistics and Mechanics (**Non-Examined Assessment:** None)

Course content

About 67% of the content is Pure Mathematics that develops algebraic topics that you have started in GCSE and introduces calculus – the mathematics of change – which is vital for modelling in applied subjects. About 33% is Applied Mathematics from Mechanics and Statistics. Statistics develops GCSE handling data and probability topics, and introduces hypothesis testing – which answers real life questions like "How far must a new drug improve recovery rates before we know it is really working?" Mechanics looks at forces and their effect on the motion of objects, and answers practical questions like "At what angle should I throw a ball so that it travels a certain horizontal distance?"

Entry requirements

Grade 7, 8 or 9 at Mathematics GCSE. Please note that you need to understand the algebra of GCSE to succeed at A Level.

Future opportunities

A Level Mathematics is highly regarded by universities and employers and is particularly useful for those hoping to study any scientific or technological degree. It is an essential part of a plethora of careers. It provides an excellent training in logical thought and the ability to reason analytically. There are about 12 student subject leaders appointed in Mathematics who run clubs and challenge mentoring sessions for younger students, give individual support at lunchtime, help administrate our one-to-one mentoring service and represent the department. There are classes for STEP and other university entrance papers. Students take the Senior Mathematics Challenge. Some progress to the national follow-on rounds. Students attend local school lectures and central London events as they arise.

Further information

What is Mathematics like?

As we are developing general patterns, we use algebra and therefore a lot of letters! So, A-Level Mathematics is like the algebra you do this year – in topics like quadratic equations or simultaneous equations or trigonometry. The ability to do algebra is essential for success at A Level.

What skills do I need to succeed at Mathematics?

- Have an inquisitive mind.
- Like solving problems and be prepared to try hard to find answers.
- Be able to get help from books, talk to friends and/or teachers to help you to answer questions.
- Be prepared to try out different lines of enquiry until you get an answer.
- You should also achieve at least a grade 7 at GCSE. This however is not enough: you need to understand all the higher-level algebra topics. This is why we set an algebra based bridging unit.
- Please also note that you will need a new calculator for A-level that has some statistical data tables included on it. The current cost is about £25 for a basic CASIO Classwiz fx991 but because of contacts with CASIO we can offer students special pricing on the CASIO CG50 graphical calculator of around £70 (RRP 149.99) – Knowing how to use this calculator will greatly benefit students.
- You will also have to pay about £5 for an online resource's password (integralmaths.org) that provides essential support for all appropriate modules.

Our results in both Mathematics and Further Mathematics are consistently high and we are proud that so many students choose a Mathematics degree as well as many more doing a related subject with high Mathematics content. In A-level Mathematics last year 18% achieved an A*, 54% an A* or A, 85% an A*, A, B