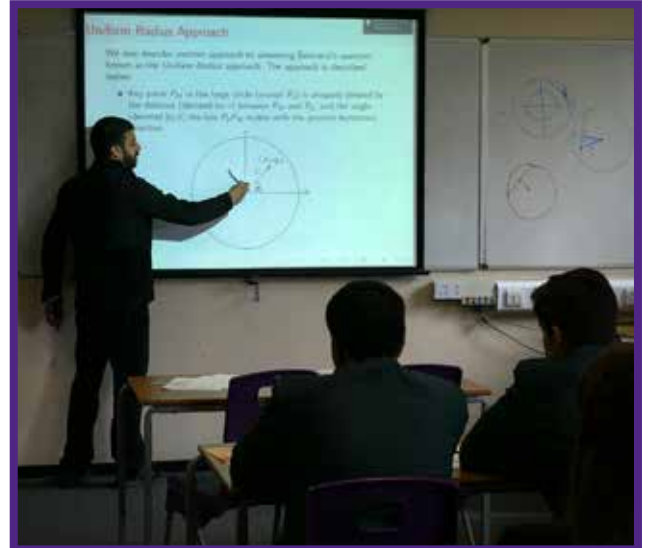


A level Mathematics

Why study Mathematics?

- Careers with good mathematical skills are often well paid, interesting and rewarding.
- It is an interesting and challenging course which extends the knowledge learnt at GCSE and introduces new areas of mathematics such as Mechanics.
- It is a versatile qualification respected by employers and enables students to become better at thinking logically and analytically.
- Mathematical problem solving enables you to develop resilience, think creatively and strategically, formulate reasoned arguments and communicate them clearly.
- This course will suit those students who enjoy algebraic problem solving.



Why study Mathematics at Solihull Sixth Form College?

- The Mathematics Department is staffed by well qualified and experienced teachers of Mathematics who use a variety of teaching methods to support your learning.
- We use technology to enhance learning and in particular graphical calculators are used to support, develop and consolidate many of the new concepts learnt.
- Every student has a dedicated electronic textbook which gives access to further support.
- There is a team of enthusiastic teachers who create a vibrant environment with the students' interest at heart.

Case Study

Among the recent successful students to have taken this course is **Robert Southall**.

He came to the College from Grace Academy to study A levels. He was an outstanding student and achieved A and A* grades in Mathematics, Further Maths and English Literature.

He has progressed to the University of Warwick to continue his Mathematics studies.



"I really did love all of my teachers. They were consistently kind and friendly. I made use of study space provided to work outside of lessons and that helped me to achieve these grades."

- student Robert Southall



Course Outline

The course builds upon students' previous experience of Mathematics, developing some topics further and introducing many new topics. Students are expected to undertake 5 hours of work away from the classroom each week.

Year 12

You will cover the essential pure mathematical methods that can be applied to real world scenarios. Topics include solving equations, graphs and transformations, coordinate geometry, logarithms and exponentials, trigonometry, and differentiation and integration. You will also study some mechanics in the form of kinematics, forces and Newton's Laws as well as some statistics including probability theory and hypothesis testing.

Year 13

The work in pure mathematics is extended to include topics such as sequences and series, functions, numerical methods and 3D vectors. There will also be more material in mechanics such as the resolution of forces, moments and the study of friction. In statistics more advanced probability theory will be covered and you will investigate statistical distributions such as the Normal Distribution.

Assessment

No Coursework

Examination (100%)

Examining Board – AQA.

Special Entry Requirements

Minimum grade 6 or above in GCSE Mathematics and 2 x grade 6 in either Combined Science or separate Sciences. In addition, standard A level entry requirements apply - see www.solihullsfc.ac.uk/courses/entry-requirements.

Prohibited Options

Statistics.

What do our students go on to do?

There is a shortage of people with strong mathematical skills. Mathematics is a common part of degree courses such as Business and Finance, Architecture, Chemistry, Biology, Psychology, Management Science and Computing. Mathematics is essential for courses such as Engineering, Physics, Economics and Mathematics itself. Mathematics A level keeps many doors open and is valuable for almost every future career plan.

Cost Implications

You will be expected to purchase a graphical calculator (Casio Graphics Calculator FX-9750GII) for use on the course and some work will be done using computers.

Complementary Subjects or Enrichment Courses

Physics, Computing, Economics, Chemistry, Biology, Geography, Psychology or Business Studies.

Examination Results

In the past three years, there has been great success for students on this course. The full breakdown of results is as follows:

Year	Entry	A*	A	B	C	D	E	U	A-E%
2018	219	11	42	57	43	35	17	14	93.6%
2019	206	18	46	39	42	38	17	6	97.0%
2020	215	22	58	39	41	34	18	3	98.6%

Contact

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