AMDG

MATHEMATICS

WHY STUDY MATHEMATICS *at* STONYHURST?

MORE THAN EDUCATIONAL EXCELLENCE

Top of the Class in UK Maths Challenges:

- ✓ UKMT Senior Maths Challenge: 6 Gold, 6 Silver and 25 Bronze awards

UKMT Team Maths Challenge:

- ✓ North West area champions 3 times in the last 9 years

We will help you to develop and share your individual gifts and talents, learn from others and to reach your full potential as both a student and a person, preparing you for a successful future, wherever it may take you.

WHAT DO I NEED?

- ✓ An appetite for problem solving
- ✓ A willingness to persist – intellectual stamina
- ✓ Ability to think independently
- ✓ Maths GCSE at grade 7 or above

WHAT WILL I LEARN?

Mathematics is a medium for learning to think algorithmically, systematically and independently.

You will learn to draw on a range of techniques to solve multi-stage problems in a variety of context and to apply higher order thinking across a range of contexts and disciplines.

More importantly, you will get a glimpse of the underlying structure and observable patterns in the world around us.

Mathematics is an important and highly regarded subject in its own right, but it is fundamental to many other undergraduate disciplines, notably Physics, Engineering and Economics.

Other popular courses with a significant mathematical element include Geography, Biology, Medicine, Management and Psychology.

WHERE COULD IT TAKE ME?

Stonyhurst Mathematics graduates currently enjoy successful careers in:

Academia

Finance
Programming

Stock Broking

Engineering

Education

COURSE ENRICHMENT

- ✓ UKMT Senior Maths Challenge – takes place in early November and is taken by all pupils in Higher Line. There are weekly practice sessions in the department
- ✓ UKMT Team Maths Challenge – takes place in late November or early December. Teams consist of two members of Rhetoric and two members of Poetry. The winning team from the area events represent the area in the national final
- ✓ Annual Interline Challenge for each Playroom
- ✓ Trips include problem-solving days and lectures
- ✓ Occasional visiting speakers

WHAT SUPPORT WILL I RECEIVE?

- ✓ Maths clinics are available to all pupils as drop-in sessions at the end of the school day.
- ✓ MEI Integral resources – all A level pupils have their own user account enabling access to interactive resources, past papers, extra exercises and online tutorials
- ✓ IB pupils have their own Kognity account – which is an eTextbook and question bank resource
- ✓ MyMaths – you may have your own MyMaths online account, if desired
- ✓ All IB and A level pupils have their personal copies of the course text books, which are written specifically for each course by practising teachers and examiners.

WHAT COURSES ARE ON OFFER?

A LEVEL MATHEMATICS - OCR SYLLABUS B (MEI)R

The emphasis will be on pure mathematics, but there will also be some statistics and mechanics, as well as a comprehension section.

A LEVEL FURTHER MATHEMATICS - OCR SYLLABUS B (MEI)

In addition to developing the material seen in Maths, there will be an opportunity to study new branches of the subject such as numerical methods and modelling with algorithms.

INTERNATIONAL BACCALAUREATE

The IB Mathematics curriculum has been updated recently, to adapt to the evolving mathematics requirements in academia, industry and society. We will be offering all options for IB Mathematics study:

- ANALYSIS & APPROACHES

The Analysis and Approaches course is designed for students who wish to study mathematics as a subject in its own right or to pursue their interests in areas related to mathematics. It will appeal to students who are interested in exploring real and abstract applications of mathematical concepts. They will enjoy problem solving and generalisation. This course is suitable for students who may go on to further study in subjects that have a significant level of mathematics content, for example mathematics itself, engineering, physical sciences or economics.

- APPLICATIONS & INTEPRETATIONS

The Applications and Interpretations course emphasises the applied nature of the subject and is designed for students who wish to understand how mathematics relates to the real world and to other subjects. This course is suitable for students who may go on to further study in subjects that utilise mathematics in this way such as social sciences, natural sciences, statistics, business, psychology or design.

- HIGHER OR STANDARD LEVEL?

Both the A&A and the A&I courses are offered at Higher and Standard level.

Our IB Diploma Programme is designed to produce highly-educated all-rounders who embrace social responsibility, intercultural awareness, and a duty to local and global communities to make an increasingly complex world a better place.

Watch
Scan the QR code for more information on the subject

www.stonyhurst.ac.uk

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