General Enquiries
Tel: 0161 886 7070
Email: info@trafford.tscg.ac.uk Website: trafford.tscg.ac.uk

AS Level in Further Mathematics

Location	Altrincham Campus
Course Type	College 16-18
Department	A Levels
Start Date	Tuesday 1st October 2024
Course Code	AFQ-AL3L-1121

Course Overview

Further Mathematics is offered as an additional (fourth) A level, for students who have shown exceptional potential in mathematics. To sit A level Further Maths, you must be sitting A level Maths and have a GCSE grade in maths of 8 or above.

The course is particularly suitable for students hoping to study maths or a closely-related subject at university. It provides an on opportunity to study engaging areas of mathematics such as Complex Numbers and Matrices that do not feature in the main A level qualifications. It also has more of an emphasis on proof and justifying mathematical arguments. Three quarters of the content are pure" mathematics (modules: Core 1, Core 2 and FP1) and the remaining quarter is Mechanics (module FM1). The exam board we will use is Edexcel.

At Trafford College, students would be entered for AS Further Mathematics in their first year, sitting two exams at the end of their first year, as well as the four exams at the end of their second year.

As with A level Mathematics, there are three 'overarching themes' that run through all the content of the course. These are: 'Mathematical argument, language and proof', 'Mathematical problem solving' and 'Mathematical modelling'. The focus on these themes helps students to develop both a deep conceptual understanding of the material and the flexibility to apply it in a range of contexts.

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Course Requirements

Students will need a strong GCSE profile of mostly grades 7/8 including Grade 8 minimum in GCSE Mathematics.

What You Will Learn

Topics relating to AS Maths, Mathematics is about solving problems.

If you enjoy Maths you should do it for its own sake! You should also choose it if compliments your application to other subjects such as Sciences, Business Studies, Economics and Psychology.

Assessment

The AS qualification is based on two written exams at the end of the first year. The modules we offer and the exam structure are as follows:

Core Pure Mathematics: 1 hour and 40 minutes 50% of the qualification
Further Pure Mathematics and Further Mechanics: 1 hour and 40 minutes 50% of the qualification

The A Level qualification is based on four written exams at the end of the two year course. The modules we offer and the exam structure are as follows:

Core Pure Maths 1 1.5 hour written exam 25% of qualification

Core Pure Maths 2 1.5 hour written exam 25% of qualification

Further Pure Maths 1 1.5 hour written exam 25% of qualification

Further Mechanics 1 1.5 hour written exam 25% of qualification

Progression

Students can progress from this qualification to a range of different, relevant academic or vocational higher education qualifications including Mathematics, Engineering, Physics, Accountancy, and Software Engineering.

Career Options

Actuary
Chartered Accountant
Data Scientist
Engineer (e.g. Civil, Mechanical, Electrical, Nuclear, Aerospace, etc.)
Software Engineer
Statistician

Mandatory Units

Pure Mathematics content
Proof
Complex numbers
Matrices
Further algebra and functions
Further Calculus
Further Vectors
Polar coordinates
Hyperbolic functions
Differential equations
Conic sections
Further Trigonometry
Taylor and Maclaurin Series
Numerical Methods

Mechanics content
Momentum and impulse
Work, energy and power
Elastic collisions
Elastic strings and springs

Contact Details

For further information please contact T: 0161 886 7070 or E: info@trafford.ac.uk

Disclaimer

Although every care has been taken to ensure that the information contained within this document is accurate, there may be changes to this programme and provision. We will endeavour to keep prospective and current students updated where appropriate and when the information becomes available.