

Course Description

This course is suitable for students who have attained a Grade A or B in National 5 Mathematics.

Higher Mathematics is designed to motivate and challenge students. During the course, students will develop their skills of selection and application of mathematical techniques in a variety of situations. This will build their confidence and develop a positive mindset towards the use of mathematics in employment or further study.

Higher Mathematics is delivered in three units providing students with the opportunities to further develop and apply a range of mathematics skills. The outcomes cover aspects of number, algebra, geometry, statistics, trigonometry, calculus, reasoning and modelling.

- **Expressions & Formulae**

The aim of this unit is to develop students' knowledge and skills that involve the manipulation of expressions, the use of vectors and the study of mathematical functions.

- **Relationships & Calculus**

The aim of this unit is to develop students' knowledge and skills that involve solving equations and differential and integral calculus.

- **Applications**

The aim of this unit is to develop students' knowledge and skills that involve geometric applications, sequences and applications of calculus.

Assessment

Each unit will be internally assessed with external verification. The Scottish Qualifications Authority stipulates that students are only allowed one re-assessment opportunity for each of the Unit Assessments; therefore these assessments must be revised for thoroughly and taken seriously by all students hoping to achieve this qualification.

The final course assessment will take the form of an external SQA examination. Students will be assessed on the entirety of the Higher Mathematics course.

Homework expectations:

Students will be expected to complete homework every week. This will involve revision of class notes, finishing off exercises at home and frequent formal hand-in homework.

Possible next level of study

Following successful completion of Higher Mathematics students may progress on to Advanced Higher Mathematics.