National 5 Applications of Mathematics (Course Code: C844 75)

SCQF Level 5 (24 Credit Points)

Why study Applications of Mathematics?

Mathematics is important in everyday life, allowing us to make sense of the world and manage our lives. You will learn how to model real-life situations and make connections and informed predictions.

You will develop the skills to interpret and analyse information, simplify and solve problems, assess risk, and make informed decisions. These skills will make you valuable to future employers.

Career Pathways

To see what career areas this subject could lead to and the routes to get there, download and view these career pathways:

Animals, Land and Environment

Buying, Selling and Related Work

Computing and ICT

Construction

Engineering

Finance

Garage Services

Health and Medicine

Science and Maths

Teaching and Classroom Support

Transport and Distribution

What do I need to get in?

Entry is at the discretion of the school or college but you would normally have achieved:

- **National 4 Applications of Mathematics**

What will I study?

Through real-life contexts, you will learn how to apply mathematical operational skills that are directly relevant to life and work. You will develop your mathematical reasoning skills, your creativity, and your ability to draw conclusions and make and justify decisions.

The course comprises **six** areas of study.

Numeracy skills

You will:

- select and use appropriate numerical notation and units
- select and carry out calculations
- record measurements using a scale on an instrument
- interpret measurements and the results of calculations to make decisions
- justify decisions by using the results of measurements and calculations.

Financial Skills

You will:

- analyse a financial position using budget information
- analyse and interpret factors affecting income
- determine the best deal (comparing at least 3 products)
- convert between several currencies
- investigate the impact of interest rates on savings and borrowing.

Statistical skills

You will:

- use a combination of statistics to investigate risk and its impact on life
- use a combination of statistical information presented in different diagrams
- use statistics to analyse and compare data sets
- draw a line of best fit from given data.

Measurement skills

You will:

- calculate a quantity based on two related pieces of information
- construct a scale drawing
- plan a navigation course
- carry out efficient container packing
- use precedence tables to plan tasks
- solve a problem involving time management
- consider the effects of tolerance.

Geometric skills

You will:

- investigate a situation involving gradient
- solve a problem involving a composite shape
- solve a problem involving the volume of a composite solid
- use Pythagoras' theorum.

Geographical data and probability skills

You will:

- extract and interpret data from different graphical forms
- make and justify decisions using evidence from the interpretation of data
- make and justify decisions based on probability.

How will I be assessed?

Course Assessment

The course assessment has **two** components **totalling 90 marks**:

- Component 1: question paper 1 (non calculator) – worth 35 marks
- Component 2: question paper 2 – worth 55 marks.

The question papers will be set and marked externally by the Scottish Qualifications Authority (SQA).

The grade awarded is based on the total marks achieved across all course assessment components.

The course assessment is graded A–D.

Study Materials

- SQA Past Papers Applications of Maths National 5
- SQA Understanding Standards Applications of Mathematics
- BBC Bitesize National 5 Applications of Mathematics

What can I go on to next?

- **Higher Applications of Mathematics**

Further study, training or employment in:

- Animals, Land and Environment
- Buying, Selling and Related Work
- Computing and ICT

- Construction
- Engineering
- Finance
- Garage Services
- Health and Medicine
- Science and Mathematics
- Teaching and Classroom Support
- Transport and Distribution