

Applications of Mathematics

National 4 & National 5

Why take this course?

This Course will develop skills for learning, life and work, through context and application-led learning. Through real-life contexts, you will acquire and be able to apply mathematical operational skills directly relevant to life and work, and to appreciate the role of mathematical ideas in the world. In addition, you will develop mathematical reasoning skills. You will learn how to draw conclusions, make and justify decisions. National 5 Applications of Mathematics will be accepted as an alternative to National 5 Mathematics for some entry qualifications, including primary education and nursing. If in doubt you should check with individual establishments.

To succeed in this course, you need...

National 4 Mathematics or National 4 Applications of Mathematics is necessary for you to study at National 5 level. You will be expected to do a significant amount of practice and consolidation of taught topics out with lesson time and you will need resilience and perseverance to cope with the reading and analysing of information presented in Case Studies.

Course Structure and Content

Applications of Mathematics: Managing Finance and Statistics (National 4 & 5)

This Unit develops skills that focus on the use of mathematical ideas and valid strategies that can be applied to managing finance and statistics in real-life contexts which may be new to the learner. This includes skills in analysing financial positions, budgeting as well as organising and presenting data to justify solutions and/or draw conclusions. The Outcomes cover aspects of finance and statistics in real-life situations requiring mathematical reasoning.

Applications of Mathematics: Geometry and Measures (National 4 & 5)

This Unit develops skills that focus on the use of mathematical ideas and valid strategies that can be applied to geometry and measurement in real-life contexts which may be new to the learner. This includes skills in analysing and using geometry and measures to determine and justify solutions to real-life problems. The Outcomes cover aspects of geometry and measurement in real-life situations requiring reasoning.

Numeracy (National 4 & 5)

This Unit develops learners' numerical and information handling skills to solve real-life problems involving number, money, time and measurement. Some are complex in nature and may be unfamiliar to the learners. As learners tackle real-life problems, they will decide what numeracy and information handling skills to use, and how to apply those skills to an appropriate level of accuracy. Learners will also interpret graphical data and use their knowledge and understanding of probability to identify solutions to solve real-life problems involving money, time and measurement. Learners will use their solutions to make and justify decisions.

Course structure and Content

You will be assessed throughout the year. Each assessment will be accumulative and will gauge how you are coping with exam level questions. If you pass these convincingly this would give an indication that you will be able to attempt the exam. The final award depends entirely on the result obtained in the SQA exam.

If you find National 5 too challenging, then you will have the opportunity to do Applications of Mathematics at National 4. The course follows the same principles as for National 5 but does not have an external exam. Each of the three units will be assessed in class when the work is completed. It is a requirement that you pass these and depending on changes made by SQA an Added Value exam which assesses the complete course.

Essentials

You need a scientific calculator.

Where might this course take me?

A pass in any Mathematics course can open a huge number of doors in your future search for a job, apprenticeship or further educational study. National 5 Applications of Mathematics is accepted as an alternative to National 5 Mathematics for some entry qualifications, including primary education and some nursing courses. If in doubt you should check with individual establishments.

You should be aware that National 5 Applications of Mathematics does not lead on to a higher course in the school at present.