

5.2 Description of S4 Courses

Subject Guide

There now follows a description of the courses on offer at National 3, National 4 and National 5.

Mathematics

Courses Available

National 3	✓
National 4	✓
National 5	✓

National 3	
Course descriptor	The course will provide consolidation of mathematical skills gained and to provide scope for further progress. Skills and knowledge will be developed to enable links to be made to real-life situations
Entry requirements	Entry to this course is at the discretion of the department. However, learners would normally be expected to have attained the skills and knowledge provided by studying CfE Second Level.
Course content	The course consists of three main Units. <ul style="list-style-type: none"> • Numeracy • Managing Money and Data • Shape, Space and Measure
Assessment	You must pass each of the End-of-Unit NAR tests. These ensure that you have understood the main aspects of all the topics that are listed above. If you pass all three of these tests, you will have an opportunity to sit the final internal exam, which will determine if you attain an overall 'pass' at the level.
Future options	On successful completion of the course, the learner could progress to National 4 Mathematics.
National 4	
Course Descriptor	This course will build on your previous work in Maths. It will extend your learning by introducing you to more advanced mathematics. It will also prepare you for further study in Mathematics.
Entry requirements	Entry to this course is at the discretion of the department. However, learners would normally be expected to have attained the skills and knowledge provided by studying CfE Third Level.
Course content	<p>Unit 1 - Expressions and Formulae Applying algebraic skills to manipulating expressions and working with formulae Applying geometric skills to circumference, area and volume Applying statistical skills to representing and analysing data and to probability Interpreting a situation where mathematics can be used and identifying a valid strategy Explaining a solution and/or relating it to a context</p> <p>Unit 2 - Relationships Applying algebraic skills to linear equations Applying geometric skills to sides and angles of shapes Applying trigonometric skills to right angled triangles Applying statistical skills to representing data Interpreting a situation where mathematics can be used and identifying a valid strategy Explaining a solution and/or relating it to context</p>

	<p>Unit 3 - Numeracy</p> <p>Selecting and using appropriate numerical notation and units Selecting and carrying out calculations Recording measurements using a straightforward scale on an instrument Interpreting the measurements and the results of calculations to make decisions Explaining decisions based on the results of calculations Extracting and interpreting data from at least two different straightforward graphical forms Making and explaining decisions based on the interpretation of data Making and explaining decisions based on probability</p>
Assessment	You must pass each of the End-of-Unit NAR tests. These ensure that you have understood the main aspects of all the topics that are listed above. If you pass all three of these tests, you will have an opportunity to sit the final internal exam, which will determine if you attain an overall 'pass' at the level.
Future options	Successful completion of National 4 is essential for those students who wish to study National 5 Mathematics in S5.
National 5	
Course descriptor	This course will build on your previous work in Maths. It will extend your learning by introducing you to more advanced Maths. It will also prepare you for further study in Mathematics.
Entry requirements	Entry to this course is at the discretion of the department. However, learners would normally be expected to have attained the skills and knowledge provided by studying CfE Third and Fourth Levels.
Course content	Throughout this course, candidates acquire and apply operational skills necessary for developing mathematical ideas through symbolic representation and diagrams. They select and apply mathematical techniques and develop their understanding of the interdependencies within mathematics. Candidates develop mathematical reasoning skills and gain experience in making informed decisions.
Skills, knowledge & understanding	<p>The following provides a broad overview of the subject skills, knowledge and understanding developed in the course:</p> <ul style="list-style-type: none"> ◆ understand and use mathematical concepts and relationships ◆ select and apply numerical skills ◆ select and apply skills in algebra, geometry, trigonometry and statistics ◆ use mathematical models ◆ use mathematical reasoning skills to interpret information, to select a strategy to solve a problem, and to communicate solutions.
Assessment	<p>The course assessment has an external assessment which comprises of two components.</p> <p>Paper 1 (Non Calculator) and Paper 2 (Calculator)</p> <p>Both question papers give learners an opportunity to apply numerical, algebraic, geometric, trigonometric, statistical and reasoning skills. They consist of short-answer and extended-response questions.</p>
Future options	Successful completion of National 5 (preferably with a Grade A or B pass) is essential for those students who wish to study Higher Mathematics in S5.

