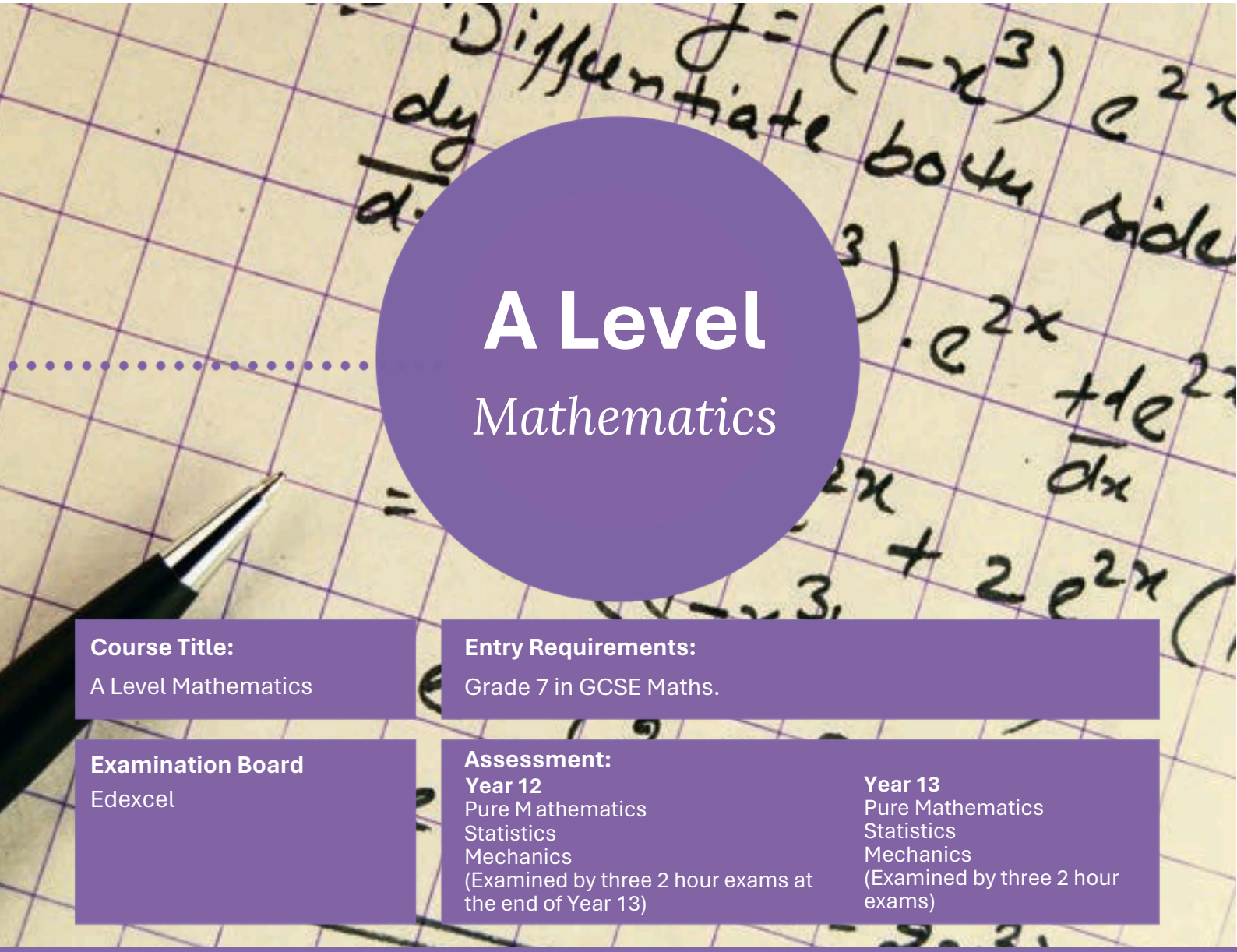
Guilsborough Academy Sixth Form
KS5 Curriculum



A Level
Mathematics

Course Title:
A Level Mathematics

Entry Requirements:
Grade 7 in GCSE Maths.

Examination Board
Edexcel

Assessment:

Year 12
Pure Mathematics
Statistics
Mechanics
(Examined by three 2 hour exams at the end of Year 13)

Year 13
Pure Mathematics
Statistics
Mechanics
(Examined by three 2 hour exams)

Is this course right for me?

Did you enjoy Mathematics at GCSE? The algebra topics in particular? Then A Level Mathematics is for you. In Pure Mathematics you will build on the solid base you have developed at GCSE and explore familiar areas of algebra and geometry in greater depth while also being introduced to the branch of Mathematics known as Calculus. You will also look at applying a range of mathematical techniques in Statistics and Mechanics to model a variety of different situations.

You will find the style of learning and expectations very similar to those in Year 11. Lesson time will be spent working through examples together and gaining confidence in that topic. You will be expected to complete a large amount of work outside lessons which will involve working through exercises from the book as well as work from other sources. To ensure all students are fully prepared for the challenges of the course, we will conduct an algebra assessment to help identify any areas which you may require additional support with, so that you have the necessary skills to access the content.

A LEVEL MATHEMATICS

Unit Contents:

Year 1 Pure Mathematics:
Algebra I, polynomials and Binomial Theorem, differentiation, exponential and logarithms

Year 1 Statistics:
Collecting, representing and interpreting data, probability and discrete random variables, hypothesis testing I

Year 1 Mechanics:
Vectors, units and kinematics, forces and Newton's laws

Year 2 Pure Mathematics:
Algebra II, sequences, numerical methods, trigonometric identities, differentiation, integration and differential equations

Year 2 Statistics:
Probably and continuous random variables, hypothesis testing II, large data set

Year 2 Mechanics:
Motion in two-dimensions, forces





Progression:

This course is suitable for those who would like to continue to study Mathematics at university, or pursue a career in a range of different areas including Physics, medicine and general science, engineering, banking and finance and teaching.

Examples of university courses and grades required:

- **University of Durham** BSc Mathematics requires A*AA
- **University of Birmingham** BSc Mathematics requires AAA
- **Coventry University** BSc Mathematics requires ABB
- **University of Leicester** BEng General Engineering requires BBB

Furthe r Information Contact:
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