A LEVEL MATHS
EXAM BOARD: EDEXCEL

SUBJECT AREA OVERVIEW

To course aims to develop an understanding of Mathematics and mathematical processes commonly used in the scientific, technological and financial worlds. This includes interpreting, explaining and evaluating the results of mathematical arguments in a range of situations and to communicating this information clearly and logically. Some of the key skills which will be developed are:

- Develop reasoning, logic and ability to perform mathematical proof
- Use mathematical skills in problem solving
- Represent real life situations via mathematical modelling
- Read and comprehend mathematical argument
- Use technology effectively in particular mathematical graphing tools and spreadsheets

Course Content

The course covers content from Pure Mathematics, Statistics and Mechanics. While the topics will be assessed separately, there will be overlap between these different areas within certain topics in this course. Each element of the course is mandatory; there is no option for students to omit studying one strand of the course content.

Assessment

The two year course leading to an A Level qualifications will have linear assessment and all examinations will be taken at the end of the second year of study. Students need to be familiar with the large data set provided by the board prior to the final assessment. Edexcel uses large data set from the Met Office in 2 different years, 1987 and 2015, from 5 different UK based and 3 overseas weather stations. Students need to know geographical locations and altitudes of each weather station for the exam in Paper 3, the limitations of the large data, approximate range of values for each variable, understand the language used and units.

- Paper 1: Pure Mathematics

33%, 2 hours, 100 marks Any A Level Pure Mathematics content can be assessed on either paper

- Paper 2: Pure Mathematics

33%, 2 hours, 100 marks

- Paper 3: Statistics and Mechanics

33%, 2 hours, 100 marks Any A Level applied content assessed

Section A: Statistics (50 marks); Section B: Mechanics (50 marks)

Recommended Reading

Textbooks:

1. Edexcel AS and A Level Mathematics Pure Mathematics Year 1/AS Textbook

ISBN: 97812921833982.

2. Edexcel A Level Mathematics Pure Mathematics Year 2 Textbook

ISBN: 9781292183404

3. Edexcel AS and A level Mathematics Statistics & Mechanics Year 1/AS Textbook ISBN:9781292183282

4. Edexcel A level Mathematics Statistics & Mechanics Year 2 Textbook ISBN: 9781446944073

A graphical calculator is an essential part of the course. The recommended calculator used in lessons is CASIO CG-50.

Career Paths and Related Subject Areas

Maths is a highly respected A-Level and is useful to study degrees such as aerospace, civil engineering, computer engineering, computer game designing, electronic engineering, finance and banking, management, mechanical engineering, pharmacology, physics, software development, web design, and many more.

For further information: https://qualifications.pearson.com/en/qualifications/edexcel-a-levels/mathematics-2017.html