RECOMMENDED LEVEL OF ATTAINMENT

At least five of the 6 Level 2 Standards done 12MTA, including Algebra, Co-ordinate Geometry and Calculus with Merit in at least one.

All cases are reviewed on their merits by the HOD.

INTRODUCTION

A course appropriate for students with an interest in the continued study of mathematics, the physical sciences, engineering, economics and any field where analysis is an important tool. The course can be taken in conjunction with 13STA.

CONTENT

- Algebra
- Logarithms
- Differentiation
- Optimisation problems
- Trigonometric identities, graphs and equations
- Trig. applications
- Trig. differentiation
- Complex numbers
- Coordinate geometry
- Integration
- Differential equations

SKILLS

- Develop problem solving and communication skills and effectively use these in familiar and unfamiliar contexts
- Further develop “pure” mathematics, with an emphasis on calculus
- Formulate problems in mathematical terms and solve these through logical, methodical and clearly presented arguments
- Increasingly understand the nature of mathematical reasoning.

FUTURE PATHWAYS

Careers in Engineering, Science, IT, Finance and Aviation.

NCEA STANDARDS – 13CAL

Not all standards will necessarily be assessed.

	Level	Credits	UE Rdg.	UE Wrtg.	
External					
91577 v2	3	5	no	no	Mathematics and Statistics 3.5 - Apply the algebra of complex numbers in solving problems
91578 v2	3	6	no	no	Mathematics and Statistics 3.6 - Apply differentiation methods in solving problems
91579 v2	3	6	no	no	Mathematics and Statistics 3.7 - Apply integration methods in solving problems
Internal					
91575 v2	3	4	no	no	Mathematics and Statistics 3.3 - Apply trigonometric methods in solving problems
91587 v2	3	3	no	no	Mathematics and Statistics 3.15 - Apply systems of simultaneous equations in solving problems