



## Senior Mathematics

### Level 1

#### MAX

This class is intended for students who are looking at doing Calculus or Statistics at Level 2 the following year.

<u>Internal Assessments</u>	
AS91026 Apply numeric reasoning in solving problems  4 credits	<b>1.1</b>
AS91029 Apply linear algebra in solving problems  3 credits	<b>1.4</b>
AS91032 Apply right-angled triangles in solving measurement problems  3 credits	<b>1.7</b>
AS91035 Investigate a given multivariate data set using the statistical enquiry cycle  4 credits	<b>1.10</b>
<u>External Assessments</u>	
AS91027 Apply algebraic procedures in solving problems  4 credits	<b>1.2</b>
AS91028 Investigate relationships between tables, equations and graphs  4 credits	<b>1.3</b>
AS91037 Demonstrate understanding of chance and data  4 credits	<b>1.12</b>



## Senior Mathematics

### Level 1

#### MAT

This is an internally assessed course only. It is intended as a 2year course or leads into 1MAX.

AS91026	<b>1.1</b>
Apply numeric reasoning in solving problems	
4 credits	
AS91030	<b>1.5</b>
Apply measurement in solving problems	
3 credits	
AS91036	<b>1.11</b>
Investigate bivariate numerical data using the statistical enquiry cycle	
3 credits	
AS91034	<b>1.9</b>
Apply transformation geometry in solving problems	
2 credits	
AS91038	<b>1.13</b>
Investigate a situation involving elements of chance	
3 credits	

#### MAP

Collecting evidence for Numeracy. This is intended for students who do not have a mathematical strength and need support for numeracy.

26623	Unit	Use number to solve problems
4	Credits	
26626	Unit	Interpret statistical information for a purpose
3	Credits	
26627	Unit	Use measurement to solve problems
3	Credits	



## Senior Mathematics

## Level 2 and 3

## Statistics

The field of **statistics** is the science of learning from data. **Statistical** knowledge helps you use the proper methods to collect the data, employ the correct analyses, and effectively present the results.

Level 2	Level 3
<b>Internal Assessments</b>	<b>Internal Assessments</b>
AS91263 <b>2.8</b> Design a questionnaire  3 credits	AS91581 <b>3.9</b> Investigate bivariate measurement data  4 credits
AS91264 <b>2.9</b> Use statistical methods to make an inference  4 credits	AS91582 <b>3.10</b> Use statistical methods to make a formal inference  4 credits
AS91265 <b>2.10</b> Conduct an experiment to investigate a situation using statistical methods  3 credits	AS91583 <b>3.11</b> Conduct an experiment to investigate a situation using experimental design principles  4 credits
<b>External Assessment- Exam</b>	<b>External Assessment- Exam</b>
AS91267 <b>2.12</b> Apply probability methods in solving problems  4 credits	AS91586 <b>3.14</b> Apply probability distributions in solving problems  4 credits



## Calculus

Advanced algebra and geometry are developed in calculus and this leads onto the more mathematical fields. It is a prerequisite for some university courses.

Level 2	Level 3
<b>Internal assessments</b>	<b>Internal assessments</b>
AS91256 <b>2.1</b> Apply co-ordinate geometry methods in solving problems  2 credits	AS91573 <b>3.1</b> Apply the geometry of conic sections in solving problems  3 credits
AS91257 <b>2.2</b> Apply graphical methods in solving problems  4 credits	AS91574 <b>3.2</b> Apply linear programming methods in solving problems  3 credits
AS91259 <b>2.4</b> Apply trigonometric relationships in solving problems  3 credits	AS91575 <b>3.3</b> Apply trigonometric methods in solving problems  4 credits
<b>External Assessments- Exams</b>	<b>External Assessments</b>
AS91261 <b>2.6</b> Apply algebraic methods in solving problems  4 credits	AS91577 <b>3.5</b> Apply the algebra of complex numbers in solving problems  5 credits
AS91262 <b>2.7</b> Apply calculus methods in solving problems  5 credits	AS91578 <b>3.6</b> Apply differentiation methods in solving problems  6 credits
	AS91579 <b>3.7</b> Apply integration methods in solving problems  6 credits



## Junior Mathematics

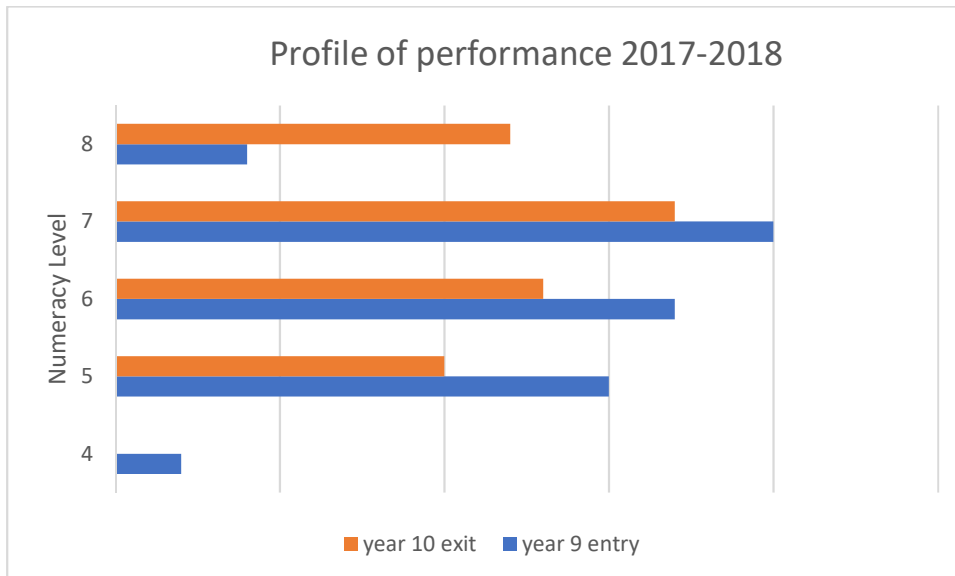
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All juniors are part of our junior certificate programme.

Assessment	Credits
Tests one per term	4
Assignments : Term 1,2,3	12
Homework	4
EXAM	5

Our classes are mixed ability and generally follow the calendar of topics as determined by the NZ curriculum and based on individual needs.

The profile of students on year entry



This is based on our testing over the year.

Term 1	Asttle entry test Numeracy test
Term 2	Numeracy test
Term 3	Numeracy Test
Term 4	Numeracy test Asttle exit test