Mathematics

Course	Standard		Credits	Form of Assessment	Literacy/ Numeracy
Year 11 Maths All students will complete 2 "must do" standards. Then the students will design and complete a course involving standards that reflect their interests and aspirations. Students will aim to achieve 16 to 22 total credits.	**Standards all students complete**				
	91030	Mathematics and Statistics 1.5 - Apply measurement in solving problems	3	Internal	Num
	91035	Mathematics and Statistics 1.10 - Investigate a given multivariate data set using the statistical enquiry cycle	4	Internal	Num, L1 Lit
	Choose remainder of course from the following standards				
	91026	Mathematics and Statistics 1.1 - Apply numeric reasoning in solving problems	4	Internal	Num
	91027	Mathematics and Statistics 1.2 - Apply algebraic procedures in solving problems	4	External	Num
	91028	Mathematics and Statistics 1.3 - Investigate relationships between tables, equations and graphs	4	External	Num
	91029	Mathematics and Statistics 1.4 - Apply linear algebra in solving problems	3	Internal	Num
	91032	Mathematics and Statistics 1.7 - Apply right-angled triangles in solving measurement problems	3	Internal	Num
	91036	Mathematics and Statistics 1.11 - Investigate bivariate numerical data using the statistical enquiry cycle	3	Internal	Num, L1 Lit
	91037	Mathematics and Statistics 1.12 - Demonstrate understanding of chance and data	4	External	Num
	91038	Mathematics and Statistics 1.13 - Investigate a situation involving elements of chance	3	Internal	Num, L1 LiT
Year 12 Maths All students will complete 2 "must do" standards. Then the students will design and complete a course involving standards that reflect their interests and aspirations. Students will aim to achieve 16 to 22 total credits.	**Standards all students complete**				
	91259	Mathematics and Statistics 2.4 - Apply trigonometric relationships in solving problems	3	Internal	Num
	91264	Mathematics and Statistics 2.9 - Use statistical methods to make an inference	4	Internal	Num, L1 Lit
	Choose remainder of course from the following standards				
	91256	Mathematics and Statistics 2.1 - Apply co-ordinate geometry methods in solving problems	2	Internal	Num
	91257	Mathematics and Statistics 2.2 - Apply graphical methods in solving problems	4	Internal	Num
	91258	Mathematics and Statistics 2.3 - Apply sequences and series in solving problems	2	Internal	Num
	91261	Mathematics and Statistics 2.6 - Apply algebraic methods in solving problems	4	External	Num
	91262	Mathematics and Statistics 2.7 - Apply calculus methods in solving problems	5	External	Num
	91265	Mathematics and Statistics 2.10 - Conduct an experiment to investigate a situation using statistical methods	3	Internal	Num, L1 Lit
	91267	Mathematics and Statistics 2.12 - Apply probability methods in solving problems	4	External	Num, L1 Lit
	91268	Mathematics and Statistics 2.13 - Investigate a situation involving elements of chance using a simulation	2	Internal	Num, L1 Lit

Year 13 Calculus					
Calculus is "pure" mathematics. It is elegant, and neat, and you get right answers. It is used for solving complex problems that regular mathematics cannot complete. Strong algebraic skills are required in calculus. Students will aim to achieve 16 to 22 total credits.	91573	Mathematics and Statistics 3.1 - Apply the geometry of conic sections in solving problems	3	Internal	Num
	91574	Mathematics and Statistics 3.2 - Apply linear programming methods in solving problems	3	internal	Num
	91575	Mathematics and Statistics 3.3 - Apply trigonometric methods in solving problems	4	internal	Num
	91576	Mathematics and Statistics 3.4 - Use critical path analysis in solving problems	2	Internal	Num
	91577	Mathematics and Statistics 3.5 - Apply the algebra of complex numbers in solving problems	5	External	Num
	91578	Mathematics and Statistics 3.6 - Apply differentiation methods in solving problems	6	External	Num
	91579	Mathematics and Statistics 3.7 - Apply integration methods in solving problems	6	External	Num
	91587	Mathematics and Statistics 3.15 - Apply systems of simultaneous equations in solving problems	3	Internal	Num

Year 13 Statistics					
Statistics relates to life. Often the answers aren't clear, so interpretation and thinking are important. Writing the reports and expressing yourself on paper helps develop your critical thinking skills and communication skills. Students will aim to achieve 16 to 22 total credits.	91574	Mathematics and Statistics 3.2 - Apply linear programming methods in solving problems	3	Internal	Num
	91580	Mathematics and Statistics 3.8 - Investigate time series data	4	Internal	Num, L1 Lit
	91581	Mathematics and Statistics 3.9 - Investigate bivariate measurement data	4	Internal	Num, L1 Lit
	91582	Mathematics and Statistics 3.10 - Use statistical methods to make a formal inference	4	Internal	Num, L1 Lit
	91583	Mathematics and Statistics 3.11 - Conduct an experiment to investigate a situation using experimental design principles	4	Internal	Num, L1 Lit
	91584	Mathematics and Statistics 3.12 - Evaluate statistically based reports	4	External	Num, L1 Lit, W Lit
	91585	Mathematics and Statistics 3.13 - Apply probability concepts in solving problems	4	External	Num
	91586	Mathematics and Statistics 3.14 - Apply probability distributions in solving problems	4	External	Num
	91587	Mathematics and Statistics 3.15 - Apply systems of simultaneous equations in solving problems	3	Internal	Num

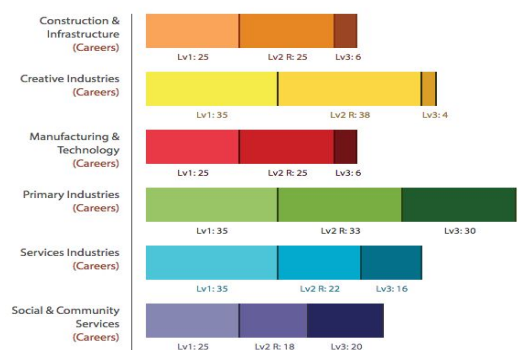| Vocational Pathway	Careers	Pathway Graph
There are mathematical aspects to every type of vocation imaginable. We individualise our courses so that you can choose specific standards from among the different topics of mathematics (number, algebra, statistics, probability, geometry & measurement) that will suit your chosen vocation.	Engineer (mechanical, civil, electrical, chemical, software, nuclear, etc), architect, scientist (biologist, chemist, physicist) sociologist, analyst, actuary, economist, pharmacist, geologist, psychologist, animator, stock broker, cryptanalyst, geology, management, marketing, law, medicine, forensics, sociology, operations research, education, geography, computer scientist, journalism, construction industry, budget analysis, climatologist,…	

Construction & Infrastructure (Careers) — Lv1: 25, Lv2 R: 25, Lv3: 6
Creative Industries (Careers) — Lv1: 35, Lv2 R: 38, Lv3: 4
Manufacturing & Technology (Careers) — Lv1: 25, Lv2 R: 25, Lv3: 6
Primary Industries (Careers) — Lv1: 35, Lv2 R: 33, Lv3: 30
Services Industries (Careers) — Lv1: 35, Lv2 R: 22, Lv3: 16
Social & Community Services (Careers) — Lv1: 25, Lv2 R: 18, Lv3: 20

Vocational Credits: 103 | Other Credits: 0 | Total: 103
R = Recommended SR = Sector Related