Fairfield College Subject Course Planning

Course: MAT100 **LEARNING AREA: MATHEMATICS** **YEAR: 2024**

Term 1	Week 1 29 Jan-2 Feb	Week 2 5 - 9 Feb	Week 3 12-16 Feb	Week 4 19-23 Feb	Week 5 26 Feb-1 Mar	Week 6 4-8 Mar	Week 7 11-15 Mar	Week 8 18-22 Mar	Week 9 25-28 Mar	Week 10 2-5 Apr	Week 11 8-12 Apr
Topics	TOD and intro	GEOMETRY							STATISTICS		
Details		Pythagoras Theorem; Use trig relations to find angles and sides for rights angled triangles; Similar Triangles Circle - Length of an Arc, Area of Sector, Cosine and Sine Rule to solve for non-right angled triangles sides and angles, Area of a Triangle Students start working on Algebra Skills as soon as they finish the assessment.							Drawing Graphs – intro; Scatter plot line of best fit; Consider-data size, bias, sampling, types of relationships – direction linear/non-linear, strength, unusual features, cleaning data		
		Short Tests after each subtopic - Internal Assessment – AS91259 (3 Credits) (Week 9)									

Term 2	Week 1 29 Apr-3 May	Week 2 6-10 May	Week 3 13-17 May	Week 4 20-24 May	Week 5 27-31 May	Week 6 4-7 Jun	Week 7 10-14	Week 8 17-21	Week 9 24-27	Week 10 1-5 Jul
Topics	STATISTICS						MATHEMATICAL REASONING			
Details	Multivariate Data – intro; Centre, Spread, Dot Plot, Box Plot; Combining Box and Dot Plot; Write question, collect data, sampling, sampling variation, Describe Features – centre – using statistics, dot plot, box plot; Shape – Describe/Compare; Unusual Features; Putting it together and making informal inference. Calculation of ICI and use it to recognise the effect of sample size on the variability of an estimate and to make an inference. Prepare students to write a level 2 inference report.						Revision – Pythagoras and Trigonometric Ratios Properties if Similar Shapes		surface area of prisms, pyramids, cones, and spheres volume of pyramids, cones, spheres, and composite shapes including prisms.	
	Internal Assessment - AS91264 Assessment (4 Credits) (Week 8)									

Term 3	Week 1 22-26 Jul	Week 2 29 Jul-2 Aug	Week 3 5-9 Aug	Week 4 12-16 Aug	Week 5 19-23 Aug	Week 6 26-30 Aug	Week 7 2-6 Sep	Week 8 9-13 Sept	Week 9 16-20 Sept	Week 10 23-27 Sept
	MATHEMATICAL REASONING									
Details	Manipulating and simplifying expressions		Generalizing properties of numbers and operations		Relate graphs, tables, equations, and patterns Linear – Graphs and Inequations Quadratics Equations				simultaneous linear equations with two unknowns Optimal Solutions	
	External Exam - AS91947 (5 Credits)									

Term 4	Week 1 14-18 Oct	Week 2 21-25 Oct	Week 3 29 Oct-1 Nov	Week 4 4-8 Nov	Week 5 11-15 Nov	Week 6 18-22 Nov	Week 7 25-29 Nov	Week 8 2-6 Dec	Week 9 9-13 Dec
	MATHEMATICAL REASONING (AS 91947)				NCEA Exam				
Details	relate rate of change to the gradient of a graph		Revision and EOT Test						