**MATHEMATICS - GRADE 11 2022**

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| **TOPIC** | **ASSESSMENT STANDARDS** | **PORTFOLIO ASSESSMENT TASKS** |
| **PHASE 1 (15 November 2021 – 11 March 2022)** | | |
| **Statistics** | Graphical representations | **Task 1:** Control Test A: Stats & Equations  31 Jan – 4 Feb  Control Test B:  Alg & Finance  7 – 11 Mar  **Task 2:** Investigation: Number patterns  14 – 18 Feb |
| Ogive curves |
| Standard deviation |
| **Algebra** | Solve quadratic equations |
| Solve quadratic inequalities |
| Algebraic expressions: completing the square |
| Solve equations in 2 unknowns, one quadratic |
| Nature of Roots |
| **Number patterns** | Linear and quadratic number patterns |
| **Finance** | Simple and compound decay |
| Rate and periods in compound growth and decay |
| **Analytical Geometry** | Parallel, perpendicular, inclination |
| Equation of a straight line |
| **PHASE 2 (14 March 2022 – 24 June 2022)** | | |
| **Functions** | Investigate characteristics of the functions:  and | **Task 3:** Assignment:  Analytical Geom  11 – 14 April  **Task 4:** June Exams  13 – 24 June  **Task 5:** Control Test A:  Functions  25 – 29 Apr  Control Test B:  Trigonometry  16 – 20 May |
| Average gradient between points on a curve |
| **Trigonometry** | CAST, Reductions |
| Identities quotient and squares formulae |
| Trigonometric equations and general solution |
| **PHASE 3 (19 July 2022 – 11 November 2022)** | | |
| **Trig functions** | Functions : y = sin k(x + p) ; y = cos k(x + p) and  y = tan k(x + p) | **Task 6:** Control Test A:  Trig functions  10 – 12 Aug  Control Test B:  Surds, Exp and Exp func 15 – 19 Aug  **Task 7:** Control Test C:  Chord theorems & angles inside circles  5 – 9 September  Control Test D:  Cyclic quads & tangents  12 – 16 September  **Task 8:** October Exam  24 Oct – 11 Nov |
| **Number and Exponent** | Surds |
| Rational exponents |
| Characteristics of the function |
| **Euclidean Geometry** | Circle theorems |
| Solving riders |
| **Probability** | Revision of Grade 10 rules |
| Venn diagrams and Tree diagrams |
| **Trigonometry** | Sine, cosine and area rules |
| Solution of right-angled and oblique triangles |