جامعة صحار
SOHAR UNIVERSITY

COURSE INFORMATION

Faculty	General Foundation Programme
Program	Mathematics

1. General Course Information

1.1. Course Title: **Applied Mathematics**

1.2. Course Code: **SET 2**

1.3. Course Level: **GFP**

1.4. Course Credit Units: **NA**

2. Course Learning Outcomes

2.1. Course Learning Outcomes mapping with Program Learning Outcomes

Course Learning Outcomes	Program Learning Outcomes												
Upon completion of the course, students are expected to be able to:	17	18	19	20	21	22	23	24	25	26	27	28	29
A. Knowledge and Understanding													
A.1. Use coordinate plane to solve algebraic and geometric problem and understand geometric concepts such as equation of a line, perpendicular, parallel, and tangent lines.	✓												
A.2. Determine the geometric concept of equation of a circle.		✓											
A.3. Determine the inverse relationship between exponents and logarithms.			✓										
A.4. Use the inverse relationship between exponents and logarithms relationship to solve related problems.			✓										
A.5. Solve exponential and logarithmic equations.				✓									
A.6. Determine the basic concepts of descriptive statistics, mean, median and mode.					✓								
A.7. Summarize data into tables and simple graphs (bar charts, histogram, and pie chart).					✓								
A.8. Determine the basic probability concepts.						✓							
A.9.Compute the probability of simple events using tree diagrams and formulas for permutations and combinations.						✓							
A.10.Solve quadratic equations and inequalities.							✓						

A.11. Solve two variables linear equations and inequalities.								✓					
A.12. Sketch graphs of two variables linear equations and inequalities.								✓					
A.13. Interpret a series of three simultaneous inequalities of two variables.									✓				
A.14. Display a series of three simultaneous inequalities of two variables graphically.									✓				
A.15. Determine the solution set of a series of three simultaneous inequalities of two variables graphically.									✓				
A.16. Compare simple and compound interest.										✓			
A.17. Relate compound interest to exponential growth.										✓			
A.18. Determine the definition of a function and its graph.											✓		
A.19. Sketch the graphs of quadratic, exponential, and logarithmic functions.											✓		
A.20. Determine the zeros and the maximum or minimum of a quadratic function.												✓	
B. Cognitive/Intellectual Skills													
B.1. Use the three types of symmetry of an equation to sketch its graph.		✓											
C. Practical Skills													
C.1. Solve problems related to zeros and the maximum or minimum of a quadratic function, including those arising from real world applications.												✓	
C.2. Solve simple real-life problems involving linear, quadratic, and exponential functions graphically and algebraically.													✓