

SUMMARY OF INFORMATION ON EACH COURSE

1.	Name of Course	Algebra							
2.	Course Code	PAM0135							
3.	Status of Course [Applies to (cohort)]	Core							
4.	MQF Level/Stage Note : Certificate – MQF Level 3 Diploma – MQF Level 4 Bachelor – MQF Level 6 Masters – MQF Level 7 Doctoral – MQF Level 8	Foundation							
5.	Version (State the date of the Senate approval – history of previous and current approval date)	Date of previous version: July 2014 Date of current version: June 2015							
6.	Pre-Requisite	Nil							
7.	Name(s) of academic/teaching staff	Heng Chai Yen, Mohd Daud Hassan							
8.	Semester and Year offered	Trimester 1							
9.	Objective of the course in the programme : To expose students to the basic topics in algebra								
10.	Justification for including the course in the programme : To equip students with the basic concepts of algebra								
11.	Course Learning Outcomes :	Domain	Level						
	LO1 Solve problems related to equations and inequalities using fundamental concepts of algebra.	Cognitive	Level 3						
	LO2 Sketch the graph of various functions.	Cognitive	Level 3						
	LO3 Use Mathematical Induction to prove mathematical statements and Binomial Theorem to expand a binomial raised to a power.	Cognitive	Level 3						
LO4 Solve problems related to arithmetic and geometric progressions.	Cognitive	Level 3							
12.	Mapping of Learning Outcomes to Programme Outcomes :								
	Learning Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
	LO1	X	X				X		

SUMMARY OF INFORMATION ON EACH COURSE

	LO2	X	X				X		
	LO3	X	X				X		
	LO4	X	X				X		
13.	Assessment Methods and Types :								
	Method and Type	Description/Details					Percentage		
	Quiz	Written quizzes					20%		
	Test	Written tests					30%		
	Final Examination	Written examination					50%		
14.	Mapping of assessment components to learning outcomes (LOs)								
	Assessment Components	LO1	LO2	LO3	LO4				
	Quiz	20	20	28.57	28.57				
	Test	30	30						
	Final Examination	50	50	71.43	71.43				
15.	Details of Course								
	Topics	Mode of Delivery (eg : Lecture, Tutorial, Workshop, Seminar, etc.) Indicate allocation of SLT (lecture, tutorial, lab) for each subtopic							
		Lecture				Tutorial			
	Fundamentals of Algebra Real numbers; Polynomials; Factoring polynomials; Rational expressions; Integer exponents; Rational exponents and Radicals.	6				2			
	Equations and Inequalities Equations: Linear equations; Quadratic equations; Radical equations; Polynomial equations; Inequalities: Linear; Quadratic; Rational and polynomial inequalities; Equations and inequalities involving absolute value.	7				3			

SUMMARY OF INFORMATION ON EACH COURSE

	<p>Functions and Algebraic Topics Functions; Domain and Range; Graph of functions and transformations of functions; Types of functions and their graphs: Quadratic functions; Polynomial functions; Rational functions; Exponential functions; and logarithmic functions; Composite and inverse functions; Indices and logarithms; Dividing polynomials, Remainder theorem and Factor theorem.</p>	11	5
	<p>Sequences and Series Introduction to summation notation; Sequence and series; Arithmetic sequence and geometric sequence and series; Binomial theorem; Pascal's triangle; Mathematical induction.</p>	4	3
	Total	28	13
16.	Total Student Learning Time (SLT)	Face to Face	Total Guided and Independent Learning
	Lecture	28	28
	Tutorials	13	13
	Quiz	5	5
	Test	2	6
	Final Exam	2	18
	Sub Total	50	70
	Total SLT	120	
17.	Credit Value	3	
18.	Reading Materials :		
	Textbooks		
	Sullivan, M., et al. (2011). <i>Algebra & trigonometry</i> . Prentice Hall.		
	Reference Material (including 'Statutes' for Law)		
	Sullivan, M. (2012). <i>Algebra & trigonometry</i> (9th ed.). Boston: Pearson Education, Inc.		
	Coburn, J.W. (2010). <i>Algebra and trigonometry</i> (2nd ed.). New York: McGraw-Hill.		
	Dugopolski, M. (2011). <i>College algebra & trigonometry: A unit circle approach</i> (5th ed.). Boston: Pearson Education, Inc.		
	Beecher, J.A., Penna, J.A. & Bittinger, M.L. (2012). <i>Algebra and trigonometry</i> (4th ed.). Boston: Pearson Education, Inc.		

SUMMARY OF INFORMATION ON EACH COURSE

Appendix (to be compiled when submitting the complete syllabus for the programme) :

1. Mission and Vision of the University and Faculty
2. Programme Objectives or Programme Educational Objectives
3. Programme Outcomes (POs)
4. Mapping of POs to the 8 MQF domain
5. Summary of the Bloom's Taxonomy's Domain Coverage in all the Los in the format below :

Subject	Learning Outcomes (please state the learning Outcomes)	Bloom's Taxonomy Domain		
		Affective	Cognitive	Psychomotor
ABC1234	Learning Outcome 1			
	Learning Outcome 2			
	Learning Outcome 3			
	Learning Outcome 4			
DEF5678	Learning Outcome 1			
	Learning Outcome 2			
	Learning Outcome 3			
	Learning Outcome 4			

6. Summary of LO to PO measurement
7. Measurement and Tabulation of result for LO achievement
8. Measurement Tabulation of result for PO achievement