

KING FAHD UNIVERSITY OF PETROLEUM & MINERALS
College of General Studies
Prep-Year Math Program
SYLLABUS
MATH012 – TERM 241

Week	Date	Sec.	Topic	Remark
1	Aug 25 Aug. 29		Factoring and simplifying Rational Expressions	
			Solving Equations: linear, quadratic, absolute value and other types.	
2	Sep. 01 Sep. 05		Solving inequalities linear, quadratic, rational and other types.	
3	Sep. 08 Sep. 12		Functions and their graphs.	
			Polynomial functions	
			Rational functions	
4	Sep. 15 Sep. 19	2.8	One-to-One Functions and Their Inverses	
		4.1,4.2	Exponential Functions and The Natural Exponential	
SAUDI NATIONAL HOLIDAY: 22 - 23 September 2024				
5	Sep. 24 Sep. 26	4.3	Logarithmic Functions	
6	Sep. 29 Oct. 03	4.4	Laws of Logarithms	
		4.5	Exponential and Logarithmic Equations	Exclude Examples 12, 13 & 14.
		5.1	Angle Measure	
7	Oct. 06 Oct. 10	5.1	Angle Measure (Continued)	Exclude Example 5
		5.2	Trigonometry of Right Triangles *	
		5.3	Trigonometric Functions of Angles	Exclude Example 8
8	Oct. 13 Oct. 17	6.2	Trigonometric Functions of Real Numbers	
		6.3	Trigonometric Graphs	Exclude Examples 6 – 10
		6.4	More Trigonometric Graphs	
9	Oct. 20 Oct. 24	6.4	More Trigonometric Graphs Measure (Continued)	
		5.4	Inverse Trigonometric Functions and their Graphs	Exclude the graphs of $\sec^{-1}x$, $\csc^{-1}x$ and $\cot^{-1}x$
		6.5		
		7.1	Trigonometric Identities	<i>The cofunction identities should be covered</i>
10	Oct. 27 Oct. 31	7.2	Addition and Subtraction Formulas	
		7.3	Double-Angle, Half-Angle	Exclude Examples 9 – 11
11	Nov. 03 Nov. 07	7.4	Basic Trigonometric Equations	
		7.5	More Trigonometric Equations	
		9.1 9.2	9.1: Vectors in Two Dimensions 9.2: The Dot Product	Exclude Examples 6 – 8
MID – TERM VACATION: 10 - 14 November 2024				
12	Nov. 17 Nov. 21	9.1 9.2	9.1: Vectors in Two Dimensions 9.2: The Dot Product	Exclude Examples 4 – 8
		10.1	Systems of Linear Equations in Two Variables	
		10.4	Systems of Nonlinear Equations	
13	Nov. 24 Nov. 28	11.1	Matrices and System of Linear Equations	Exclude Example 8
		11.2	The Algebra of Matrices	Exclude Example 7
		11.3	Inverses of Matrices and Matrix Equations	Exclude Example 7
14	Dec. 01 Dec. 05	11.3	Inverses of Matrices and Matrix Equations	
		11.4	Determinants + Properties of Determinants**	Exclude Examples 6 – 8

		12.1	Parabolas (with shifted Parabolas)	Exclude Example 6
15	Dec. 08	12.2	Ellipses (with shifted Ellipses)	
	Dec. 12	12.3	Hyperbolas (with shifted Hyperbolas)	
16	Dec. 15 Dec. 16	Rev	Review for Final Exam	