

KING FAHD UNIVERSITY OF PETROLEUM & MINERALS
College of General Studies, Prep-Year Math Program
SYLLABUS: MATH012 – TERM 261

Week	Date	Sec.	Topic
1	Aug. 19 - Aug. 20	MATH 001	1. Factoring and Simplifying Rational Expressions
2	Aug. 23 - Aug. 27		1. Solving Equations: <i>linear and quadratic.</i> 2. Solving Equations: <i>absolute value, and other types of equations.</i> 3. Solving Inequalities: <i>linear, quadratic, rational, and other types.</i>
3	Aug. 30 - Sep. 03		1. Functions: <i>graphs, combining functions, and transformation of functions</i> 2. Polynomial functions: <i>polynomial division, graphs, and complex zeros</i> 3. Rational functions
4	Sep. 06 - Sep. 10		2.8: One-to-One Functions and Their Inverses 4.1, 4.2: Exponential Functions and The Natural Exponential 4.3: Logarithmic Functions
5	Sep. 13 - Sep. 17		4.4: Laws of Logarithms 4.5: Exponential and Logarithmic Equations
6	Sep. 20 - Sep. 22	5.1	Angle Measure
		5.2	Trigonometry of Right Triangles
SAUDI NATIONAL DAY: 23 RD – 24 TH SEPTEMBER 2026			
7	Sep. 27 - Oct. 01	5.3	Trigonometric Functions of Angles
		6.2	Trigonometric Functions of Real Numbers
		6.3	Trigonometric Graphs
MAJOR EXAM I: WEDNESDAY SEPTEMBER 30, 2026 [Math001 + 5.1 – 6.2]			
8	Oct. 04 - Oct. 08	6.3	Trigonometric Graphs..... <i>continue</i>
		6.4	More Trigonometric Graphs
		5.4, 6.5	Inverse Trigonometric Functions and their Graphs
9	Oct. 11 - Oct. 15	7.1	Trigonometric Identities
		7.2	Addition and Subtraction Formulas
		7.3	Double-Angle, Half-Angle
10	Oct. 18 - Oct. 19	7.4	Basic Trigonometric Equations
		7.5	More Trigonometric Equations
		MID-TERM BREAK: 20 TH – 22 ND OCTOBER 2026	
11	Oct. 25 - Oct. 29	7.5	More Trigonometric Equations..... <i>continue</i>
		9.1, 9.2	Vectors in Two Dimensions & The Dot Product
		10.1	Systems of Linear Equations in Two Variables
12	Nov. 01 - Nov. 05	10.1	Systems of Linear Equations in Two Variables..... <i>continue</i>
		10.4	Systems of Nonlinear Equations
		11.2	The Algebra of Matrices
13	Nov. 08 - Nov. 12	11.3	Inverses of Matrices and Matrix Equations
		11.4	Determinants + Properties of Determinants
		12.1	Parabolas (<i>with shifted Parabolas</i>)
MAJOR EXAM II: WEDNESDAY NOVEMBER 11, 2026 [6.3 – 11.4]			
14	Nov. 15 - Nov. 19	12.1	Parabolas (<i>with shifted Parabolas</i>)..... <i>continue</i>
		12.2	Ellipses (<i>with shifted Ellipses</i>)
		12.3	Hyperbolas (<i>with shifted Hyperbolas</i>)
15	Nov. 24 - Nov. 26	AUTUMN BREAK: 22 ND – 23 RD NOVEMBER 2026	
		12.4	<i>Shifted Conic Sessions</i>
		13.1	Sequences and Summation Notation
16	Nov. 29 - Dec. 03	13.1	Sequences and Summation Notation..... <i>continue</i>
		13.2	Arithmetic Sequences
		13.3	Geometric Sequences
17	Dec. 06 - Dec. 10	13.3	Geometric Sequences..... <i>continue</i>
		Rev	<i>Review for Final Exam</i>
FINAL EXAM: TO BE ANNOUNCED [5.1 – 13.3]			