

KING FAHD UNIVERSITY OF PETROLEUM & MINERALS
College of Applied & Supporting Studies, Prep-Year Math Program
SYLLABUS
MATH 002 (182)

Week#	Date	Text Sections	Topic	Suggested Review Exercises
1	Jan. 6-10	2.8	One-to-One Functions and Their Inverses ¹	7,8,9,10,11,12,15,16,20,25,60,62,70
		4.1&4.2	Exponential Functions and the natural exponential	4.1: 2,10,16,20,22,24,38 4.2: 10,15,16
2	Jan. 13-17	4.3	Logarithmic Functions	4,12,16,22,23,28,32,37,42,71,72,54,56
		4.4	Laws of Logarithms	10,11,16,22,39,44,47,48,52,53,65,66
3	Jan. 20-24	4.5	Exponential and Logarithmic Equations ²	10,36,37,43,48,52,54,66,78,84,85
		5.1	Angle Measure ³	7,16,25,28,30,32,36,38,42,45,58,60
4	Jan. 27-31	5.1	Angle Measure (Continued)	7,16,25,28,30,32,36,38,42,45,58,60
		5.2	Trigonometry of Right Triangles ⁴	8,10,16,18,34,42,47,48,49
5	Feb. 3-7	5.3	Trigonometric Functions of Angles ⁵	6,10,11,22,28,38,40,41,44,50,53,55,56
		6.2	Trigonometric Functions of Real Numbers	5,12,18,34,47,49,52,53,59,65,70,75,76,
Major Exam I : Wednesday, Feb. 13, 2019 - Material (2.8, 4.1 – 6.2)				
6	Feb. 10-14	6.3	Trigonometric Graphs ⁶	15,17,23,31,41,44,47,48,49,50,51,52,
		6.4	More Trigonometric Graphs	3,5,8,9,14,16,18,26,28,32,33,51,54,56
7	Feb. 17-21	6.4	More Trigonometric Graphs Measure (Continued)	3,5,8,9,14,16,18,26,28,32,33,51,54,56
		5.4 & 6.5	Inverse Trigonometric Functions and their Graphs ⁷	4,5,7,10,23,24,25,31,34,40,44,45,48
8	Feb. 24-28	7.1	Trigonometric Identities	3,7,11,12,14,15,20,23,26,27,34,41,42,6
			Addition and Subtraction Formulas ⁸	5,71,74,75,83
9	Mar. 3-7	7.2	Addition and Subtraction Formulas ⁸ (continue ..)	6,8,12,15,17,18,19,20,25,33,34,40
		7.3	Double-Angle, Half-Angle ⁹	3,8,11,15,19,22,29,30,33,34,39,41,43,4
10	Mar. 10-14	7.4	Basic Trigonometric Equations	6,51,53,54,69,72
		7.5	More Trigonometric Equations	27,33,37,43,45,51,54,55,56
11	Mar. 17-21	9.1 & 9.2	9.1: Vectors in Two Dimensions ¹⁰ 9.2: The Dot Product ¹¹	3,11,14,17,21,24,26,31,33,39,42,43,4
		10.1	Systems of Linear Equations in Two Variables	4 9.1: 7,11,16,22,28,33,39,46,51,52 9.2: 7,10,17,20,21,23,39,42
Major Exam II : Sunday, March 24, 2019 - Material (6.3 – 9.2)				
12	Mar. 24-28	10.4	Systems of Nonlinear Equations	7,12,13,17,35,40,50,55
		11.1	Matrices and System of Linear Equations ¹²	3,8,14,26,29,32
13	Mar. 31- April 4	11.2	The Algebra of Matrices ¹³	12,17,20,23,26,33,38,39,56
		11.3	Inverses of Matrices and Matrix Equations ¹⁴	12,14,15,22,33,36,45,46,50
14	April 7-11	11.4	Determinants+ Properties of Determinants ¹⁵	6,14,23,42,45,46
		12.1	Parabolas ¹⁶	10,12,15,19,23,28,37,63
15	April 14-18	12.2	Ellipses	5-10,35,38,43,46,47,48,50,56
		12.3	Hyperbolas	5-8,9,16,20,27,30,33
		12.4	Shifted Conics	5-8,16,18,21,27,28,31,37,40,43,45,49
5, 7, 8, 11, 12, 13,17, 20, 21, 22,23, 28				

See page (2) for footnotes

- (1) Sec. 2.8: Exclude Example 11.
- (2) Sec. 4.5: Exclude Pages 402 and 403.
- (3) Sec. 5.1: Exclude Area of a sector.
- (4) Sec. 5.2: The cofunction identities from section 7.1 page 574 *should be covered*.
- (5) Sec. 5.3: Exclude Areas of Triangles.
- (6) Sec. 6.3: Exclude Pages 528-530.
- (7) Sec. 5.4 & 6.5: Exclude the graphs of $\sec^{-1}x$, $\csc^{-1}x$ and $\cot^{-1}x$.
- (8) Sec. 7.2: The exercises 51-54 page 588 *should be covered*.
- (9) Sec. 7.3: a. Exclude: 1- Product to sum formulas,
2- Sum to product formulas,
b. The exercises 47-50 page 597 *should be covered*.
- (10) Sec. 9.1: Exclude Pages 671 and 672.
- (11) Sec. 9.2: Up to example 3.
- (12) Sec. 11.1: Exclude Example 8.
- (13) Sec. 11.2: Exclude Pages 787 and 788.
- (14) Sec. 11.3: Exclude Example 7.
- (15) Sec. 11.4: a. Exclude: 1- Cramer's Rule,
2- Area of triangles using determinant in page 810.
b. Properties of Determinants *should be covered*.
- (16) Sec. 12.1: Exclude Page 831.