

KING FAHD UNIVERSITY OF PETROLEUM & MINERALS
College of Applied & Supporting Studies, Prep-Year Math Program

SYLLABUS
MATH 002 (142)

Week #	Date	Text Sections	Topic	Suggested Review Exercises
1	Jan. 25 – 29	4.1	Inverse Function	12,16,22,24,48,52,58,68,74,80,86
		4.2	Exponential Functions and Their Applications	10,18,24,30,40,48,56,66,90,96
2	Feb. 1 – 5	4.3	Logarithmic Functions and Their Applications	2,6,20,28,34,38,50,56,62,66,76,92
		4.4	Evaluating Logarithms and Change of Base	6,44,70,76,78,80
3	Feb. 8 – 12	4.5	Exponential and Logarithmic Equations	11,18,38,46,52,58,62,85,95
		5.1	Angles	22,26,44,54,58,88,96,102,120,128
4	Feb. 15 – 19	5.2	Trigonometric Functions	8,26,40,46,50,68,80,91,98,108,118
		5.3	Evaluating Trigonometric Functions	9,20,48,52,82,88,92,124,129
5	Feb. 22 – 26	5.4	Solving Right Triangle	7,10,32,44,43,56,58
		6.1	Radian Measure(Exclude Area of a sector)	14,28,44,46,66,76,89,96
6	Mar. 1 – 5	6.2	Unit Circle and Circular Measure	18,18,38,44,50,64,72,88,90,92,106
		6.3	Graphs of Sine and Cosine Functions	3,6,10,16,30,36,42,45
Major Exam I March 3rd [4.1 – 6.2]				
7	Mar. 8 – 12	6.4	Translation of Sine and Cosine Functions	2,6,8,10,20,22,28,40,46,54
		6.5	Graphs of the Tangent, Cotangent, Secant, and Cosecant Functions	5,6,12,18,22,32,34,40,54,60,66
		6.6	Graphs of the Secant, and Cosecant Functions	2,4,8,18,20,24,30
8	Mar. 15 – 19	7.1	Fundamental Identities	6,8,14,30,52,67,70
		7.2	Verification of Trigonometric Identities	6,16,31,43,56,64,74,91
		7.3	Sum and Difference Identities	8,12,26,30,40,56,64,86,94,110
Mid Term Vacation				
9	Mar. 29 – Apr. 2	7.4	Double-Angle and Half-Angle Identities (Exclude pages 676 & 677)	3,4,6,10,14,20,30,50,66,78,90
			Reduction Identity	Recitation Paper
		7.5	Inverse Circular Functions	20,30,40,44,67,71,80,86,92,104
10	Apr. 5 – 9	7.6	Trigonometric Equations	14,20,26,36,58,61,68,82,89
		7.7	Equations Involving Inverse Trigonometric Functions	8,22,30,34,38,42
11	Apr. 12 – 16	8.3	Vectors, Operations, and the Dot Product	26,28,32,36,42,66,74,82,86,92
		9.1	Systems of Linear Equations (Up to page 843)	14,18,28,30,36,46,70,78
12	Apr. 19 –23	9.5	Nonlinear Systems of Equations	2,10,16,26,28,36,38,52,54,56
		9.7	Properties of Matrices	6,10,16,24,35,44,48,66,72,78
Major Exam II April 21st [6.3 – 9.1]				
13	Apr. 26 – 30	9.2	Matrix Solution of Linear Systems	8,10,20,28,36,38,40,45
		9.3	Determinant Solution of Linear Systems (Exclude Cramer’s Rule)	2,12,18,24,32,42,52,56
14	May. 3 – 7	9.8	The Inverse of a Matrix	6,10,12,22,40,42(b),44,65,68
		10.1	Parabolas	2,10,18,24,30,34,38,40,42,53
15	May. 10 – 14	10.2	Ellipses	1,10,12,18,20,24,26,30,32,38
		10.3	Hyperbolas	2,4,10,18,20,24,30,35,41,46

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Pre-Requisite: Math 001

Textbook: College Algebra & Trigonometry by Lial, Hornsby, and Schneider, 5th Edition, Pearson, (2013)

Objectives: The objectives of this course are to:

- Develop the comprehension of the course material in English.
- Develop critical thinking among students.
- Improve their computational skills and demonstrate writing ability of solutions with logical.

Note: The medium of instruction will be strictly ENGLISH from the first day of classes.

Grading Policy:

1. **Exam I:** 20% a common multiple choice exam.
2. **Exam II:** 20% a common multiple choice exam.
3. **Final Exam:** 36% a comprehensive common multiple choice exam.
4. **Class Work:** 24% it is based on a minimum of 5 quizzes (8 points), class test (8 points), online homework (8 points). **Any quiz or test under class activity should be of written type and not of a multiple choice type.**

Class Work Average: The average of the class work for each section should be in the interval: $[x, x+1]$, where x is the average of (EX1 & EX2) each out of 16.

Exam Questions: The questions of the common exams are based on the examples, homework problems, recitation problems and the exercises of the textbook.

Missing an Exam: No makeup exam will be given under any circumstance. When a student misses Exam I or Exam II for a legitimate reason (such as medical emergencies), his grade for this exam will be determined based on the Department policy. Further, the student must provide an official excuse within one week of the missed exam.

Attendance:

A student will be awarded the GRADE “DN” after missing EIGHT classes without an OFFICIAL excuse. It is the responsibility of the student to keep the record of his absences. Students will have ONLY 6 days to submit their excuses to the prep-year affairs (1st warning: 3 absences; 2nd warning: 6 absences; “DN”: 8 absences)

Website: To check your warnings (WEEKLY), Homework Solutions, Exam Locations, and other Math announcements, please check the Prep-Year website: