OFFICIAL SYLLABUS

MATH 125

Effective Fall 2025

PRE-CALCULUS MATHEMATICS WITH TRIGONOMETRY

Eighth Edition

Catalog Description: Brief Review of Algebra, exponential and logarithmic functions, trigonometric functions and their applications, inverse trigonometric functions, trigonometric identities and equations, laws of sines and cosines.

Prerequisite: ACCUPLACER Adv Algebra-Fnctns 250 AND ACCUPLACER QR-Algebra-Stats 250 OR ALEKS PPL - Math Plcmnt 61 OR MATH 120 Minimum Grade of C OR MATH 120E Minimum Grade of C OR MATH 120I Minimum Grade of C

Textbook: PRECALCULUS MATHEMATICS FOR CALCULUS, 8th Edition, by Stewart, Redlin, and Watson. ISBN-13: 978--0-357-79363-7

	Title	Assignment (No Graphing Calculator)
(W1) 1.4	**Rational Expressions REVIEW** (Add more problems if you have difficulty.)	4, 5, 7, 9, 11, 12, 23, 35, 37-42, 45-51 (odd), 57-63 (odd), 69, 75-78, 81-87 (odd), 91, 96, 97
(W1) 1.5	**Equations REVIEW** (Add more problems if you have difficulty.)	1, 5, 6, 27, 28, 31-33, 35, 39, 49, 53, 55, 62, 63, 65, 69, 73, 74, 79, 84, 89, 90, 91, 95, 99, 102, 131 132, 139, 142
(W1) 1.8	**Inequalities REVIEW**	1 – 3, 23, 25, 31, 33, 35, 39, 43, 45, 49, 51, 55, 57, 57, 61-65 (odd), 69, 71, 77-83 (odd), 87, 109, 111, 113, 114, 119, 123, 125, 133
	Chapter 1 Review	**Concept Check: 3, 7, 9, 12, 18-22, 28, 29, 31-35, 37** **Exercises: 25-37 (odd), 41, 42, 44-50, 58, 59, 63, 65 66-68,71, 86, 87-97 (odd), 105-107, 109, 111, 113, 114 127, 131-134, 149, 151**
(W2) 2.1	**Function Brief REVIEW**	1, 2, 3, 9, 11, 21, 27, 33, 35, 37-40, 45-69 (odd), 72, 73, 88 92, 93
(W2) 2.8	**One-to-One Functions and Their Inverses Brief REVIEW**	2, 3, 7, 9, 13-19 (odd), 20, 23, 25, 27, 28, 39, 43, 45-47 49-57 (odd), 65-73 (odd), 85-91 (odd), 101, 102

Section	Title	Assignment (No graphing calculator)
(W2) 5.1	The Unit Circle	1 – 4, 5, 9, 11, 12, 16, 17, 18, 19, 20, 23, 24, 25-37 (odd), 47, 49, 53, 55, 65
(W2+W3) 5.2	Trigonometric Functions of Real Numbers	1, 2, 7, 9-23 (odd), 25 – 28, 29, 31, 38-40, 43, 47-59 (odd) 67, 68, 71, 83-86
(W3) 5.3	Trigonometric Graphs (Need graph paper!)	1, 3, 5, 7, 11-15 (odd), 17, 21-25 (odd), 28, 33-37 (odd), 41, 49, 51, 53, 57
(W3) 5.4	More Trigonometric Graphs	1-7 (odd), 9, 13, 15, 17, 35
(W4) 5.5	Inverse Trigonometric Functions and Their Graphs (Skip inverse secant, cosecant and cotangent)	1 – 3, 5, 7, 9, 23-47 (odd), 51, 53
	Chapter 5 Review	Concept Check: 1 – 7, 10 Exercises: 1, 3, 5, 7, 11, 13, 17-23 (odd)
(W5) 6.1	Angle Measure	1-3, 5, 9, 11, 16, 17-21 (odd), 31-33, 35, 37, 41, 45, 47, 48 51, 53-55, 61, 63
(W5) 6.2	Trigonometry of Right Triangles	1- 3 (all), 5-11 (odd), 17, 19, 23 -35 (odd), 39, 43, 49, 51, 55, 56, 59, 63, 64, 68, 69
(W6) 6.3	Trigonometry Function of Angles	1-3 (all), 5-17 (odd), 25, 27, 29, 31-39 (odd), 41-47(odd), 51, 55, 59, 61, 63
(W6) 6.4	Inverse Trigonometric Functions and Right Triangles	1-4, 5-11 (odd), 17, 21, 27, 33, 34, 36, 41-46 (all)
(W7) 6.5	Law of Sines	1, 5, 7, 11, 15, 19, 21, 23, 25, 31, 33, 34, 35, 36, 37, 41
(W7) 6.6	Law of Cosines	1, 3, 5, 9, 15, 17, 23-27 (odd), 41, 43, 50, 53
	Chapter 6 Review	Concept Check: 1-9, 11 Exercises: 1, 3, 5, 11, 17, 21, 23, 28, 32, 33-43, 45, 53, 55 59, 61, 63, 67, 69, 71, 77, 80, 81

Section	Title	Assignment (No graphing calculator)
(W8) 7.1	Trigonometric Identities	1, 2, 3-15 (odd), 25, 29, 33, 35, 39, 40, 41, 49, 55, 57, 63 67, 73, 75, 79, 91-96 (all), 113
(W9) 7.2	Addition and Subtraction Identities	1, 2, 3, 5, 9-13 (all), 15, 17, 25, 26, 29, 32, 35, 36, 55, 56 57, 65
(W9) 7.3	Double--Angle, Half-Angle Product--Sum Formulas (optional)(*)	1, 3, 5, 11-33 (odd), 37, 39, 51, 53, 73, 75, 77, 79, 82
(W10) 7.4	Basic Trigonometric Equations	2, 3-9 (odd), 13, 17, 19, 25, 28, 31, 33, 37, 41, 45, 47 51, 51, 53, 56
(W11) 7.5	More Trigonometric Equations	1, 2, 3, 5, 7, 11, 17, 19
	Chapter 7 Review	Exercises: 4-7, 9–12, 29-33, 35, 39, 49, 50, 52, 53, 55, 59, 60, 62
(W12) 4.1	Exponential Functions (Need graph paper!)	1-3, 5, 7, 9, 11, 13, 17, 21, 23, 25, 26, 27, 29, 31, 33, 51
(W11) 4.2	The Natural Exponential Function	1, 3, 6, 7-13, 25, 27, 29-a, 30-a, 36, 41; From #29 and #30,show that $\left[\cosh(x)\right]^2 - \left[\sinh(x)\right]^2 = 1$
(W13) 4.3	Logarithmic Functions	1-7, 15-17, 21, 23, 25, 27, 31-33, 35, 37, 41, 45, 49, 50 53-59 (Also find the inverse function), 63, 67, 69, 75, 77 79, 87, 91, 93, 101, 103
(W14) 4.4	Laws of Logarithms	1-9, 11, 17, 23, 29, 31, 35, 37, 47-53 (odd), 59, 61, 77
(W15) 4.5	Exponential and Logarithmic Equations	1-3, 8, 13, 18, 21, 22, 27, 33, 37, 37, 42, 47, 51, 59, 61 63, 78, 79, 81, 94, 95
	Chapter 4 Review	Concept Check: 1-10 Exercises: 5-19 (odd), 20, 21-29 (odd), 31-71 (odd) 74, 76, 86, 85, 87

NOTE: Suggested problems may be adjusted accordingly by the instructor. (*)

Suggested problems do not contain exercises for optional sessions