

OFFICIAL SYLLABUS

MATH 120

COLLEGE ALGEBRA

Adopted Fall 2014

Catalog Description:

Cartesian coordinates, graphing, lines, parabolas, functions, inverses, roots of polynomials, rational functions and inequalities, linear systems, matrices, determinants.

Prerequisite: ACT Math 23 or higher, AD 095 with a grade of C or better, or satisfactory placement test score.

Textbook: College Algebra, 9th Edition, by Larson, ISBN: 9781133963028

	Title	Suggested Assignment
1.1	Graphs and Equations	7-47 odd, 61-73odd
1.2	Linear Equations in One Variable	7-53 odd, 65, 66, 73, 75
1.3	Modeling with Linear Equations	3-45odd, 53, 55, 59-63odd
1.4	Quadratic Equations and Applications	7-47odd, 65-93odd, 105-115odd, 119, 121, 131-135odd
1.5	Complex Numbers	7-89odd
1.6	Other Types of Equations	5-63odd, 85-97odd
1.7	Linear Inequalities in One Variable	5-57odd, 75-59odd, 83-93odd
1.8	Other Types of Inequalities	5-51odd, 61-65odd
2.1	Linear Functions in Two Variables	9-83odd
2.2	Functions	5-59odd
2.3	Analyzing Graphs of Functions	7-23odd, 31-37odd, 55-63odd, 67-81odd
2.4	A Library of Parent Functions	11, 13, 27, 31-39odd
2.5	Transformations of Functions	5, 6, 8, 9-63odd

Section	Title	Suggested Assignment
2.6	Combinations of Functions: Composite Functions	5-25odd, 31-53odd
2.7	Inverse Functions	7-39odd, 45-53odd, 57-69odd, 73-91odd
3.1	Quadratic Functions and Models	7-16, 17-23odd, 29, 31, 43, 44, 47-51odd, 65-69odd
3.2	Polynomial Functions of Higher Degree	9-14, 15-25odd, 35-47odd, 65-69odd, 75-81odd
3.3	Polynomial & Synthetic Division	11-21odd, 27-31odd, 47-51odd, 55-59odd, 81
3.4	Zeros of Polynomial Functions	9-17odd, 19-25odd, 29, 33, 35, 45, 47, 55, 57, 63-73odd, 87, 89, 99, 107-110
4.1	Rational Functions & Asymptotes	5-25odd, 29-36, 37, 39
4.2	Graphs of Rational Functions	3-10, 15-33odd, 43, 47, 49
6.1	Linear & Nonlinear Systems of Equations	(Linear System only) 5, 7, 9, 15-23odd, 33, 35
6.2	Two-Variable Linear Systems	5-25odd, 31-34, 35-39odd
7.1	Matrices & Systems of Equations	(Definition and Order of a Matrix only) 9-16
7.2	Operations with Matrices	5-21odd, 35-41odd, 47-55odd
7.4	The Determinant of a Square Matrix	5-21odd, 39-43odd, 47-51odd, 67, 69
7.5	Applications of Matrices & Determinants	(Cramer's Rule only for 2x2 system) 7,9,11

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