

BRONX COMMUNITY COLLEGE
of the City University of New York

DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE

SYLLABUS: MTH 30 - Precalculus (4 Credits - 4 Hours per week)

Prerequisite: MTH 06 or equivalent

TEXT: Precalculus Essentials (Third Edition) by Robert E. Blitzer, Prentice-Hall

<u>SECTION</u>	<u>TOPIC</u>	<u>SUGGESTED EXERCISES</u>
Functions and Graphs		
1.2	Basics of Functions and their Graphs	159/ 11-31 (odd), 45, 47, 53 -57, 71, 72, 75, 76
1.3	More on Functions and their Graphs	173/ 11, 15, 17, 23, 69-76, 81
1.6	Transformations of Functions	216/ 1-87 (odd)
1.7	Combinations of Functions; Composite Functions	229/ 5-11, 17-33, 49-57, 81-88
1.8	Inverse Functions	240/ 1-5, 11-25, 29-37
Polynomial and Rational Functions		
2.2	Quadratic Functions	298/ 9-55 (odd)
2.3	Polynomial Functions and Their Graphs	312/ 3-7, 15-20, 21, 25, 27-33, 37, 39, 41-47
2.4	Dividing Polynomials; Remainder and Factor Theorems	324/ 13, 15, 17-25, 33-41
2.5	Zeroes of Polynomial Functions	335/ 1-17, 19, 21, 23, 25-31 (odd)
2.6	Rational Functions and Their graphs	354/ 1-7, 9-14, 21-35, 37, 41, 49, 55, 63
2.7	Polynomial and Rational Inequalities	366/1-23 (odd), 43-45, 55-57, 69, 70
Exponential and Logarithmic Functions		
3.1	Exponential Functions	396/ 11-17, 19-24, 25-31, 35-37, 41, 43
3.2	Logarithmic Functions	410/ 1-29, 43, 44, 47-53, 55, 59, 63, 71, 75-79, 81-89
3.3	Properties of Logarithms	421/ 1-27, 35, 37, 41-57, 67, 71-77
3.4	Exponential and Logarithmic Equations	432/1-21, 27-43, 49-57, 67-69, 85, 87

Trigonometric Functions

4.1	Angles and Radian Measure	472/1-10, 13-28, 41-56, 60-63
4.2	Trigonometric Functions: The Unit Circle	486/ 1-55
4.3	Right Triangle Trigonometry	498/ 3-15, 21-31
4.4	Trigonometric Functions of Any Angle	513/1-21, 23-27, 35-43, 61-73
4.5	Graphs of Sine and Cosine Functions	533/1-25 (odd), 43-49
4.7	Inverse Trigonometric Functions	563/ 1-11, 19-41, 47-53, 63-67

Analytic Trigonometry

5.1	Verifying Trigonometric Identities	594/ 1-35
5.2	Sum and Difference Formulas	603/ 1, 3, 5, 13, 15, 21, 23, 33, 35
5.5	Trigonometric Equations	636/ 11, 15, 19, 25, 39, 41, 57, 59

11/09 (JP)