BRONX COMMUNITY COLLEGE of the City University of New York
DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE

SYLLABUS: MTH 06 – Basic Concepts of Mathematics II (0 credits, 6 hours per week)

PREREQUISITES: MTH 05 or equivalent and RDL 02 if required.

TEXT: *Elementary and Intermediate Algebra , **Fifth Edition***
(The ***Hutchinson*** Series in Mathematics)

AUTHORS: Baratto, Bergman

PUBLISHER: McGraw-Hill, 2013

SUPPLEMENTARY TEXT: *Trigonometry -- ISBN: 9781475074574; Electronic version can be downloaded at*
http://mecmath.net/trig/trigbook.pdf

AUTHOR: Michael Corral

Note to Students: A scientific calculator with trigonometric functions such as *sin, cos* is required

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SECTIONS	**TOPICS**	**SUGGESTED EXERCISES**

CHAPTER 7 Radicals and Exponents (12 hours)

7.1	Roots and Radicals	pp. 560-561:	1-67 odd, optional 59-77 odd
7.2	Simplifying Radical Expressions	pp. 573:	1-73 odd
7.3	Operations on Radical Expressions	pp. 584-585:	1-85 odd
7.4	Solving Radical Equations	pp. 593-595:	1-9 odd, 15-49 odd, 81-89 odd
7.5	Rational Exponents	pp. 603-604:	1-105 odd
7.6	Complex Numbers	pp. 611-613:	1-85 odd

CHAPTER 8 Quadratic Functions (8 hours)

8.1	Solving Quadratic Equations	pp. 634-639:	1 – 81 odd, 89-97 odd, 107-113 odd
8.2	The Quadratic Formula	pp. 652-654:	1-83 odd
8.3	An Introduction to Parabolas	pp. 666-668:	1- 53 odd
8.4	Problem Solving with Quadratics	pp. 678-680:	1-21 odd, 41-44

CHAPTER 9 Rational Expressions (12 hours)

9.1	Simplifying Rational Expressions	pp. 698-700:	1-77 odd
9.2	Multiplying and Dividing Rational Expressions	pp. 710:	1-41 odd
9.3	Adding and Subtracting Rational Expressions	pp. 722-723:	1-59 odd
9.4	Complex Fractions	pp. 731:	1-39 odd
9.6	Solving Rational Equations	pp. 762-766:	1-101 odd

CHAPTER 10 Exponential and Logarithmic Functions (8 hours)

10.4	Exponential Functions	pp. 819-820:	1- 49 odd
10.5	Logarithmic Functions	pp. 832-833:	1-73 odd

Trigonometry Supplement:

1.1 Angles (2 hours) pp. 1 - 5   p.5-6: 1-15 odd

1.2 The Trigonometric Ratios (4 hours), pp. 6 - 12   p.12-13: 1-33 odd

1.3 Applying Right Triangles (4 hours), pp. 14 - 19   p. 20-23: 1,4,7,14,15,17,19,21,23,27

1.4 Trigonometric Functions of Any Angle (5 hours), pp. 24 - 31   p. 31: 1-39 odd

3.1 Trigonometric Identities (5 hours), pp. 65 - 69   p. 70: 1,2, 5-15 odd

4.1 Radians and Degrees (2 hours), pp. 87 - 89   p. 89: 1-10

4.2 Arc length (2 hours), pp. 90 - 93,   p.94: 1-6

**5.1 Graphing the Trigonometric Functions / The Unit Circle and
the Trigonometric Functions (6 hours),** pp. 103 - 108   p. 108: 1,9,10,13,14,15
(Explore graphs of the type $y = A \sin x$, $y = A \cos x$ only)

IP Dec 2010, IP Sep 2013, QF Aug 2016, PY Sep 2018