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 Supplement* (Bronx Community College), McGraw-Hill 2008

AUTHOR: Bergman

SPECIAL FEATURES: A free, text specific, CD-ROM is included.

Supported by ALEKS: https://www.aleks.com

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:

The Trigonometric Ratios (4 hours), pp. 51 – 57   p. 58-62:   1- 45 odd, 51-55 odd, 75-93 odd

Applying Right Triangles (4 hours), pp. 72 – 81   p. 82-85:   1-51 odd

**The Trigonometric Functions and
Cartesian Coordinates (6 hours),** pp. 100 – 111   p. 112-114:   1-85 odd

Circles and Radian Measure (4 hours), pp. 126 – 136   p. 137/138:   1-77 odd

**The Unit Circle and
the Trigonometric Functions (6 hours),** pp. 148 – 156   p. 157-159:   1-75 odd

Graphing the Trigonometric Functions (6 hours), pp. 168 – 174   p. 175/176:   1-31 odd
 (Explore graphs of the type $y = A \sin x$, $y = A \cos x$ only)

Trigonometric Identities (2 hours), pp. 184 – 191   p. 192/193:   1-25 odd, 39 - 67 odd

KF/January 2003 Updated SEP July 2003, SEP Jan 2004, MM Jan 2005,

PhRo: May 2007, Feb 2008, Aug 2008, IP Dec 2010, IP Sep 2013