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)

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

TEXT: *Elementary and Intermediate Algebra / A Unified Approach,* ***Third (!) Edition,***
(The ***Streeter/Hutchinson*** Series in Mathematics)
AUTHORS: Baratto, Bergman

PUBLISHER: McGraw-Hill, 2008

SUPPLEMENTARY TEXT: *Trigonometry Supplement* (Bronx Community College), McGraw-Hill 2008
AUTHORS: Bergman

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

Supported by ALEKS: www.highed.aleks.com**.**

Note to Students: A *scientific calculator* (with trigonometric functions sin, cos, etc) is required.

SECTIONS	TOPICS	SUGGESTED EXERCISES

CHAPTER 7 Rational Expressions (10 hours)

7.1	Simplifying Rational Expressions	pp. 707-709:	1-65 odd
7.2	Multiplication and Division of Rational Expressions	pp. 722-724:	1-43 odd
7.3	Addition and Subtraction of Rational Expressions	pp. 737-739:	1-49 odd
7.4	Complex Fractions	pp. 745-746:	1-39 odd
7.5	Solving Rational Equations	pp. 763-767:	1- 49 every other odd, 51-73 odd

CHAPTER 3 Graphs and Linear Equations (2 hours)

3.6	Graphing Linear Inequalities in Two Variables	pp. 360/361:	1-23 odd

CHAPTER 9 Graphical Solutions (4 hours)

9.3	Solving Absolute Value Equations Graphically	pp. 906/908:	1-35 odd
9.4	Solving Absolute Value Inequalities Graphically (and algebraically)	pp. 922/923:	1-27 odd

CHAPTER 10 Radicals and Exponents (12 hours)

10.1	Roots and Radicals	pp. 943-946:	1-53 odd, 79-85 odd
10.2	Simplifying Radical Expressions	pp. 957-959:	1-77 odd
10.3	Operations on Radical Expressions	pp. 972-974:	1-83 odd
10.4	Solving Radical Equations	pp. 983-985/987:	1-57 odd, 79-87 odd
10.5	Rational Exponents	pp. 996-999:	1-87 odd
10.6	Complex Numbers	pp. 1009-1012:	1-83 odd

Chapter 11 Quadratic Functions (6 hours)

11.1 Solving Quadratic Equations by Completing the Square	pp. 1033-1035: 1 – 59 odd
11.2 The Quadratic Formula	pp. 1049-1052: 1-77 odd
11.3 An Introduction to Parabolas	pp. 1070-1073: 1- 49 odd

Chapter 12 Conic Sections (6 hours)

12.1 Conic Sections and Circles (**only** circles!)	pp. 1110-1113: 9-47 odd

Chapter 13 Exponential and Logarithmic Functions (8 hours)

13.2 Exponential Functions	p. 1166-1168: 1- 47 odd
13.3 Logarithmic Functions	p. 1183-1185: 1-73 odd

Trigonometry Supplement:

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

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