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


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

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


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

SECTIONSTOPICS
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

(over for page2)
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:


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)
