

**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 / A Unified Approach, Fourth Edition*  
(The *Streeter/Hutchinson* Series in Mathematics)

**AUTHORS:** Baratto, Bergman

**PUBLISHER:** McGraw-Hill, 2011

**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: [www.highed.aleks.com](http://www.highed.aleks.com)

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

---

SECTIONS	TOPICS	SUGGESTED EXERCISES	
<b>CHAPTER 7 Radicals and Exponents (12 hours)</b>			
7.1	Roots and Radicals	pp. 723-728:	1-55 odd, optional 57-65 odd
7.2	Simplifying Radical Expressions	pp. 737-741:	1-73 odd
7.3	Operations on Radical Expressions	pp. 751-753:	1-83 odd
7.4	Solving Radical Equations	pp. 762-766:	1-9 odd, 15-49 odd, 79-87 odd
7.5	Rational Exponents	pp. 775-778:	1-109 odd
7.6	Complex Numbers	pp. 788-792:	1-85 odd
<b>CHAPTER 8 Quadratic Functions (8 hours)</b>			
8.1	Solving Quadratic Equations	pp. 817-819:	1– 53 odd, optional circle problems
8.2	The Quadratic Formula	pp. 833-837:	1-77 odd
8.3	An Introduction to Parabolas	pp. 849-852:	1- 53 odd
8.4	Problem Solving with Quadratics	pp. 865-868:	1-21 odd, 41-44
<b>CHAPTER 9 Rational Expressions (12 hours)</b>			
9.1	Simplifying Rational Expressions	pp. 888-890:	1-79 odd
9.2	Multiplying and Dividing Rational Expressions	pp. 901-903:	1-43 odd
9.3	Adding and Subtracting Rational Expressions	pp. 914-916:	1-57 odd
9.4	Complex Fractions	pp. 925-926:	1-39 odd
9.6	Solving Rational Equations	pp. 962-967:	1-79 odd
<b>CHAPTER 10 Exponential and Logarithmic Functions (8 hours)</b>			
10.4	Exponential Functions	pp. 1025-1027:	1- 49 odd
10.5	Logarithmic Functions	pp. 1043-1045:	1-73 odd

## ***Trigonometry Supplement:***

<b>The Trigonometric Ratios (4 hours),</b> pp. 51 – 57	p. 58-62: 1-45 odd, 51-55 odd, 75-93 odd
<b>Applying Right Triangles (4 hours),</b> pp. 72 – 81	p. 82-85: 1-51 odd
<b>The Trigonometric Functions and Cartesian Coordinates (6 hours),</b> pp. 100 – 111	p. 112-114: 1-85 odd
<b>Circles and Radian Measure (4 hours),</b> pp. 126 – 136	p. 137/138: 1-77 odd
<b>The Unit Circle and the Trigonometric Functions (6 hours),</b> pp. 148 – 156	p. 157-159: 1-75 odd
<b>Graphing the Trigonometric Functions (6 hours),</b> pp. 168 – 174 (Explore graphs of the type $y = A \sin x$ , $y = A \cos x$ only)	p. 175/176: 1-31 odd
<b>Trigonometric Identities (2 hours),</b> 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