

**BRONX COMMUNITY COLLEGE LIBRARY
SUGGESTED FOR
MTH 06
BASIC CONCEPTS OF MATHEMATICS II**

Textbook: Elementary and Intermediate Algebra: A Unified Approach
Authors: Baratto, Bergman, Hutchison

Section Topics of the Textbook

- V3464.7** **Chapter 7** Rational Expressions
9.1 Simplifying Rational Expressions
9.2 Multiplying and Dividing Rational Expressions
9.3 Adding and Subtracting Rational Expressions
9.4 Complex Fractions
9.6 Solving Rational Equations
- V3464.3** **Chapter 3** Graphs and Linear Equations
- V3464.9** **Chapter 9** Graphical Solutions
- V3464.10** **Chapter 10** Radicals and Exponents
7.1 Roots and Radicals
7.2 Simplifying Radical Expressions
7.3 Operations on Radical Expressions
7.4 Solving Radical Equations
7.5 Rational Exponents
7.6 Complex Numbers
- V3464.11** **Chapter 11** Quadratic Functions
8.1 Solving Quadratic Equations
8.2 The Quadratic Formula
8.3 An Introduction to Parabolas
8.4 Problem Solving with Quadratics
- V3464.12** **Chapter 12** Conic Sections
- V3464.13** **Chapter 13**
Exponential and Logarithmic Functions
10.4 Exponential Functions
10.5 Logarithmic Functions

TRIGONOMETRY SUPPLEMENT**TRIGONOMETRY (SERIES)** – Total Time: 414min, c1988

- DVD770.1**
- ANLES, DEGREES, AND RADIANS
 - INTRODUCTION TO TRIGONOMETRIC FUNCTIONS
 - TRIGONOMETRIC FUNCTIONS OF GENERAL ANGLES
 - TRIGONOMETRIC EQUATIONS
- DV770.2**
- GRAPHING TRIGONOMETRIC FUNCTIONS – I
 - GRAPHING TRIGONOMETRIC FUNCTIONS – II
 - TRIGONOMETRIC IDENTITIES – I
 - TRIGONOMETRIC IDENTITIES - II
- DVD770.3**
- TRIGONOMETRIC IDENTITIES - III
 - INVERSE TRIGONOMETRIC FUNCTIONS
 - TRIGONOMETRIC EQUATIONS
 - RIGHT TRIANGLE APPLICATIONS
- DVD770.4**
- LAW OF SINES
 - LAW OF COSINES
 - POLAR COORDINATES
 - TRIGONOMETRIC FORM: DEMOIVRE’S THEOREM & ROOTS OF COMPLEX NUMBERS

PRE-CALCULUS (SERIES) – c1996

- V2583.3**
- ANALYTIC TRIGONOMETRY** – 39min
ADDITIONAL APPLICATIONS OF TRIGONOMETRY – 30min
ANALYTIC GEOMETRY – 38min
- V2583.4**
- EXPONENTIAL & LOGARITHMIC FUNCTIONS** -30min
TRIGONOMETRIC FUNCTIONS – 30min
GRAPHS OF TRIGONOMETRIC FUNCTIONS – 33min
- V2583.5**
- PRELIMINARIES** – 32min
FUNCTIONS & THEIR GRAPHS – 31min
POLYNOMIAL & RATIONAL FUNCTIONS - 32min

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.

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

SECTIONS

TOPICS

SUGGESTED EXERCISES

CHAPTER 7 Radicals and Exponents (12 hours)

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

CHAPTER 8 Quadratic Functions (8 hours)

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

CHAPTER 9 Rational Expressions (12 hours)

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

CHAPTER 10 Exponential and Logarithmic Functions (8 hours)

10.4 Exponential Functions	pp. 1025-1027:	1-49 odd
10.5 Logarithmic Functions	pp. 1043-1045:	1-73 odd

Page 1 (over for page 2)

Trigonometry Supplement:

The Trigonometric Ratios (4 hours) , pp. 51 – 57 75-93 odd	p. 58-62:	1-45 odd, 51-55 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 (Explore graphs of the type $y = A \sin x$, $y = A \cos x$ only)	p. 175/176:	1-31 odd
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