BRONX COMMUNITY COLLEGE
of the City University of New York
DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE

SYLLABUS

MTH 06 – Intermediate Algebra and Trigonometry (0 credits, 6 hours per week)

Prerequisite: None. Students with Math Proficiency Index less than 40 are strongly encouraged to enroll in Math Start or CUNY Start, before taking college-level mathematics courses.

Textbooks: 1. Intermediate Algebra 2e, by Lynn Marecek and Andrea Honeycutt Mathis, OpenStax
https://openstax.org/details/books/intermediate-algebra-2e

2. Precalculus by Jay Abramson, OpenStax
https://openstax.org/details/books/precalculus

SECTIONS	**TOPICS**	**SUGGESTED EXERCISES**

Intermediate Algebra 2e Text
Chapter 1 Foundations (**4hr**)
| 1.2 Integers | | 39/63-66, 71-110, 119-126 |
| 1.3 Fractions | | 54/143-166, 173-182, 209-224,229-234 |

Chapter 2 Solving Linear Equations (**8hr**)
2.1 Use a General Strategy to Solve Linear Equations		113/5-26
2.3 Solve a Formula for a Specific Variable		147/165-194
2.5 Solve Linear Inequalities		186/296-317
2.7 Solve Absolute Value Inequalities		211/434-489

Chapter 3 Graphs and Functions (**4hr**)
| 3.1 Graph Linear Equations in Two Variables | | 252/9-28, 33-68 |
| 3.5 Relations and Functions | | 328/299-302, 307-332 |

Chapter 4 Systems of Linear Equations (**2hr**)
| 4.1 Solve Systems of Linear Equations with Two Variables | | 390/30-35, 46-55 |

Chapter 5 Polynomials and Polynomial Functions (**4hr**)
5.1 Add and Subtract Polynomials		503/1-28, 33-46, 53-68
5.2 Properties of Exponents and Scientific Notation		528/81-126, 131-155, 162-173
5.3 Multiply Polynomials		545/178-271

Chapter 6 Factoring (**8hr**)
6.1 Greatest Common Factor and Factor by Grouping		582/9-50
6.2 Factor Trinomials		600/61-130, 135-152
6.3 Factor Special Products		615/159-190, 213-220
6.4 General Strategy for Factoring Polynomials		625/233-246, 249-256
6.5 Polynomial Equations		641/277-326

Chapter 7 Rational Expressions and Functions (16hr)

7.1 Multiply and Divide Rational Expressions   666/1-24, 29-44, 49, 50
7.2 Add and Subtract Rational Expressions   682/75-142
7.3 Simplify Complex Rational Expressions   695/151-194
7.4 Solve Rational Equations   709/197-230

Chapter 8 Roots and Radicals (14hr)

8.1 Simplify Expressions with Roots   771/1-15, 19-22
8.2 Simplify Radical Expressions   789/55-65
8.3 Simplify Rational Exponents   805/119-162
8.4 Add, Subtract, and Multiply Radical Expressions   818/165-168, 183-186, 191-214(only ⓐ)
8.5 Divide Radical Expressions   832/245, 246, 259-262, 271-282
8.6 Solve Radical Equations   846/287-304, 315-326
8.8 Use the Complex Number System   868/409-412

Chapter 9 Quadratic Equations and Functions (6hr)

9.1 Solve Quadratic Equations Using the Square Root Property   893/1-30
9.2 Solve Quadratic Equations by Completing the Square   909/75-101
9.3 Solve Quadratic Equations Using the Quadratic Formula   923/113-136

Precalculus Text

Chapter 5 Trigonometric Functions (6hr)

5.1 Angles   455/26-42
5.4 Right Triangle Trigonometry   495/10-41, 52-56

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