

BRONX COMMUNITY COLLEGE OF THE CITY UNIVERSITY OF NEW YORK  
DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE

SYLLABUS: **MTH 30 Precalculus**

COREQUISITE: MTH06 or equivalent

TEXT: *Precalculus* by Paul Sission, Hawkes Learning Systems,

SECTION TOPIC

**Chapter 3: Relations, Functions, and Their Graphs**

- 3.1 Relations and Functions
- 3.2 Linear and Quadratic Functions
- 3.3 Other Common Functions
- 3.5 Transformations of Functions
- 3.6 Combining Functions
- 3.7 Inverses of Functions

**Chapter 4: Polynomial Functions**

- 4.1 Introduction to Polynomial Equations and Graphs
- 4.2 Polynomial Division and Division Algorithm
- 4.3 Locating Real Zeroes of Polynomials
- 4.4 The Fundamental Theorem of Algebra
- 4.5 Rational Functions and Rational Inequalities

**Chapter 5: Exponential and Logarithmic Functions**

- 5.1 Exponential Functions and Their Graphs
- 5.2 Applications of Exponential Functions
- 5.3 Logarithmic Functions and Their Graphs
- 5.4 Properties and Applications of Logarithms
- 5.5 Exponential and Logarithmic Equations

**Chapter 6: Trigonometric Functions**

- 6.1 Radian and Degree Measure of Angles
- 6.2 Trigonometric Functions of Acute Angles
- 6.3 Trigonometric Functions of Any Angle
- 6.4 Graphs of Trigonometric Functions
- 6.5 Inverse Trigonometric Functions

## **Chapter 7: Trigonometric Identities and Equations**

- 7.1 Fundamental Identities and Their Uses
- 7.2 Sum and Difference Identities
- 7.3 Product-Sum Identities
- 7.4 Trigonometric Equations