Hunter College of The City University of New York

MATH 125 Precalculus 4 hrs, 4 cr

Textbook: Precalculus (custom edition for Hunter College, with student's solution manual) by Robert Blitzer, Pearson Custom Publishing

Chapter 1 Functions and Their Graphs

1.1 Graphs and Graphing Utilities
1.2 Basics of Functions and Their Graphs
1.3 More on Functions and Their Graphs
1.4 Linear Functions and Slope
1.5 More on Slope
1.6 Transformations of Functions
1.7 Combinations of Functions; Composite Functions
1.8 Inverse Functions
1.9 Distance and Midpoint Formulas; Circles
1.10 Modeling With Functions

Chapter 2 Polynomial and Rational Functions

2.1 Complex Numbers
2.2 Quadratic Functions
2.3 Polynomial Functions and Their Graphs
2.4 Dividing Polynomials; Remainder and Factor Theorems
2.5 Zeros of Polynomial Functions
2.6 Rational Functions and Their Graphs
2.7 Polynomial and Rational Inequalities

Chapter 3 Exponential and Logarithmic Functions

3.1 Exponential Functions
3.2 Logarithmic Functions
3.3 Properties of Logarithms
3.4 Exponential and Logarithmic Equations
3.5 Exponential Growth and Decay; Modeling Data

Chapter 4 Trigonometric Functions

4.1 Angles and Radian Measure
4.2 Trigonometric Functions: The Unit Circle
4.3 Right Triangle Trigonometry
4.4 Trigonometric Functions of Any Angle
4.5 Graphs of Sine and Cosine Functions

4.6 Graphs of Other Trigonometric Functions
4.7 Inverse Trigonometric Functions
4.8 Applications of Trigonometric Functions

Chapter 5 Analytic Trigonometry

5.1 Verifying Trigonometric Identities
5.2 Sum and Difference Formulas
5.3 Double-Angle and Half-Angle Formulas
5.5 Trigonometric Equations

Chapter 6 Additional Topics in Trigonometry

6.1 The Law of Sines
6.2 The Law of Cosines

Chapter 7 Systems of Equations and Inequalities

7.1 Systems of Linear Equations in Two Variables
7.4 Systems of Nonlinear Equations in Two Variables