

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

SYLLABUS: MTH 14 – COLLEGE ALGEBRA and INTRODUCTION TO CALCULUS
(3 credits, 3 hours)

PREREQUISITE: MTH 13

TEXTBOOK: “BASIC TECHNICAL MATHEMATICS with CALCULUS”, 9th edition
by Allyn J. Washington (ISBN: 978-0-13-814226-1)
Publisher: Pearson Prentice Hall.

Note to student: The CASIO CFX 8950G or any TI series graphic calculator is recommended.

SECTIONS	TOPICS	SUGGESTED EXERCISES
CHAPTER 21 PLANE ANALYTIC GEOMETRY		
21.3	The Circle (review)	p. 572/1-43 odd
21.4	The Parabola	p. 576/1-39 odd
21.5	The Ellipse	p. 582/1-37 odd
21.6	The Hyperbola	p. 587/1-39 odd
21.7	Translation of Axes	p. 576/1-43 odd
CHAPTER 23 THE DERIVATIVE		
23.1	Limits	p. 656/1-51 odd
23.2	The Slope of a Tangent to a Curve	p. 660/1-25 odd
23.3	The Derivative	p. 664/1-37 odd
23.4	The Derivative as an Instantaneous Rate of Change	p. 668/1-29 odd
23.5	Derivatives of Polynomials	p. 672/1-35 odd; 39
23.6	Derivatives of Products and Quotients of Functions	p. 676/1-31 odd; 39,41,43,45,47
23.7	The Derivative of a Power of a Function	p. 682/1-23 odd; 29-47 odd
23.8	Differentiation of Implicit Functions	p. 686/1-31 odd.
23.9	Higher Derivatives	p. 689/1-39 odd
CHAPTER 24 APPLICATIONS OF THE DERIVATIVE		
24.1	Tangents and Normals	p. 696/1-15 odd; 17,21
24.2	Newton's Method for Solving Equations	p. 700/1-13 odd; 21
24.3	Curvilinear Motion	p. 704/1-15 odd; 19, 21
24.4	Related Rates	p. 707/1-23 odd
24.5	Using Derivatives in Curve Sketching	p. 714/1,5,9,11,13; 31-39odd
24.6	More on Curve Sketching	p. 719/1,5,9,13,17
24.7	Applied Maximum and Minimum Problems	p. 724/1-27 odd
24.8	Differentials and Linear Approximation	p. 729/1-15 odd; 25,27,29
CHAPTER 27 DIFFERENTIATION OF TRANSCENDENTAL FUNCTIONS		
27.1	Derivatives of the Sine and Cosine Functions	p. 801/1-31 odd;37,38,39,43,51
27.2	Derivatives of the Other Trigonometric Functions	p. 804/1-31 odd; 39,41,47
27.3	Derivatives of the Inverse Trigonometric Functions	p. 807/1-31 odd
27.4	Applications	p. 811/1,7,8,9,11,15,17,19,23
27.5	Derivative of the Logarithmic Function	p. 816/1-31 odd; 39,41,45
27.6	Derivative of the Exponential Function	p. 819/1-31 odd; 35,41,47
27.7	Applications	p. 823/13-25 odd; 31