Bronx Community College of the City University of New York
Department of Mathematics and Computer Science

SYLLABUS: Math 32 – Calculus and Analytic Geometry II (5 credits/ 6 hours per week)

PREREQUISITE: Math 31 or equivalent

TEXT: Calculus (Eighth Edition) by James Stewart, published by Brooks/Cole. ISBN-10: 1285740629
Students who do not need Math 33 may use Single Variable Calculus (Eighth Edition) by James Stewart, published by Brooks/Cole. ISBN-10: 1305266633

SECTION	TOPIC	SUGGESTED EXERCISES
Chapter 5: Applications of Integration		
5.1	Areas between Curves	pg. 362: 1–29 odd
5.2	Volumes	pg. 374: 1–33 odd, 54-60
5.3	Volumes by Cylindrical Shells	pg. 381: 1–25 odd
	Review	pg. 393: 1, 7, 9, 15, 23, 25
Chapter 6: Inverse Functions		
6.1	Inverse Functions	pg. 406: odd 1–15, 23-27, 35- 43
	Instructor's option: 6.2-6.4 or 6.2*-6.4*	
6.2	Exponential Functions and Their Derivatives	pg. 418: 1, 7–13 odd, 23–49 odd, 79-89 odd
6.3	Logarithmic Functions	pg. 426: 1–17 odd, 27–35 odd, 47, 49, 51
6.4	Derivatives of Logarithmic Functions	pg. 436: 1–29 odd, 43–53 odd, 71–81 odd
6.2*	The Natural Logarithmic Function	pg. 445: 1-37 odd, 61-73 odd
6.3*	The Natural Exponential Function	pg. 452: 5-11 odd, 27-51 odd, 81-91 odd
6.4*	General Logarithmic and Exponential Functions	pg. 463: 1-9 odd, 21-41 odd, 45-49 odd
6.6	Inverse Trigonometric Functions	pg. 481: 5–13 odd, 23–35 odd, 43,45,59–69 odd
6.7	Hyperbolic Functions	pg. 489: 7–23 odd, 31–45 odd, 59–67 odd
6.8	Indeterminate Forms and L'Hospital's Rule	pg. 499: 1–4, 5–65 odd, 71-74
	Review	pg. 505: 5–47 odd, 63–77 odd, 93–105 odd

Chapter 7: Techniques of Integration

7.1	Integration by Parts	pg. 516: 1–41 odd, 47–54

Instructor's option: 7.4 can be done immediately after 7.1.

7.2	Trigonometric Integrals	pg. 524: 1–31 odd
7.3	Trigonometric Substitution	pg. 531: 1–29 odd
7.4	Integration of Rational Functions by Partial Fractions	pg. 541: 1–29 odd, 39-49 odd
7.5	Strategy for Integration	pg. 547: 1–59 odd
7.8	Improper Integrals	pg. 574: 1, 5–31 odd, optional 49-54
	Review	pg. 577: 1–25 odd, 41–49 odd

Chapter 8: Further Applications of Integrals

8.1	Arc Length	pg. 588: 1–17 odd
8.2	Area of a Surface of Revolution	pg. 595: 1–15 odd, 27

Chapter 10: Parametric Equations and Polar Coordinates

10.3	Polar Coordinates	pg. 706: 1–11 odd, 15–25 odd 29–45 odd
10.4	Areas and lengths in Polar Coordinates	pg. 712: 1–31 odd, optional 45-48
10.5	Conic Sections	pg. 720: 1–47, odd

Section 10.6 is an instructor's option.

10.6	Conic Sections in Polar Coordinates	pg. 728: 1–15 odd
	Review	pg. 730: 9–15 odd, 31–39 odd, 45–55 odd

Remark: Some elements of sections 10.1 and 10.2 can be discussed as a general introduction to the curves covered in Chapters 8 and 10.

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10/2014 M.M. & I.P. - 08/2016 A.W. - Last updated 01/14/2019