

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

SYLLABUS: Math 32 – Calculus and Analytic Geometry II (4 credits/ 6 hours per week)

PREREQUISITE: Math 31 or equivalent

TEXT: Calculus (Fifth Edition) by James Stewart, published by Brooks/Cole.

Students who do not need Math 33 may use

Single Variable Calculus (Fifth Edition) by James Stewart, published by Brooks/Cole.

SECTION TOPIC

SUGGESTED EXERCISES

Chapter 6: Applications of Integration

6.1	Areas between Curves	pg. 380: 1–27 odd
6.2	Volumes	pg. 391: 1–17 odd, 31–35 odd
6.3	Volumes by Cylindrical Shells	pg. 396: 1–15 odd
	Review	pg. 406: 1, 7, 9, 15, 25

Chapter 7: Inverse Functions

7.1	Inverse Functions	pg. 420: 1–16, 25, 27, 29, 35, 37
7.2	Exponential Functions and Their Derivatives	pg. 431: 1, 7–13 odd, 23, 25, 29–41 odd
7.3	Logarithmic Functions	pg. 439: 1–15 odd, 29–37 odd
7.4	Derivatives of Logarithmic Functions	pg. 449: 1–27 odd, 39–49 odd, 65–75 odd
7.5	Inverse Trigonometric Functions	pg. 483: 5–13 odd, 23–35 odd, 59–69 odd
7.6	Hyperbolic Functions	pg. 491: 7–17 odd, 23, 31–47 odd, 55–61 odd
7.7	Indeterminate Forms and L'Hospital's Rule	pg. 501: 1–4, 5–61 odd, 87, 88, 89
	Review	pg. 505: 5, 7, 11–45 odd, 63–71 odd, 91–99 odd

Chapter 8: Techniques of Integration

8.1	Integration by Parts	pg. 516: 1–35 odd, 41–48
8.2	Trigonometric Integrals	pg. 524: 1–27 odd, 65, 67
8.3	Trigonometric Substitution	pg. 530: 1–29 odd
8.4	Integration of Rational Function by Partial Fractions	pg. 540: 1–25 odd
8.5	Strategy for Integration	pg. 546: 1–25 odd, 45–51 odd, 67–73 odd
8.8	Improper Integrals	pg. 573: 1, 5–27 odd
	Review	pg. 577: 1–25 odd, 41–49 odd

Chapter 9: Further Applications of Integrals

- 9.1 Arc Length pg. 588: 5–15 odd,
9.2 Area of a Surface of Revolution pg. 595: 1–15 odd, 25

Chapter 11: Parametric Equations and Polar Coordinates

- 11.3 Polar Coordinates pg. 713: 1–11 odd, 15–25 odd 29–39 odd
11.4 Areas and lengths in Polar Coordinates pg. 719: 13–31 odd
11.5 Conic Sections pg. 726: 1–29 odd, 33, 35, 39, 41, 45, 47
11.6 Conic Sections in Polar Coordinates pg. 731: 1–15 odd
Review pg. 733: 7–13 odd, 29–37 odd, 43–53 odd

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