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 (Sixth Edition) by James Stewart, published by Brooks/Cole.
Students who do not need Math 33 may use Single Variable Calculus (Sixth Edition) by James Stewart, published by Brooks/Cole.

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SECTION	TOPIC	SUGGESTED EXERCISES

Chapter 6: Applications of Integration

6.1	Areas between Curves	pg. 352: 1–29 odd
6.2	Volumes	pg. 362: 1–35 odd, 56-62
6.3	Volumes by Cylindrical Shells	pg. 368: 1–25 odd
	Review	pg. 378: 1, 7, 9, 15, 23, 25

Chapter 7: Inverse Functions

7.1	Inverse Functions	pg. 391: odd 1–15, 23-27, 33- 41

Instructor's option: 7.2-7.4 or 7.2*-7.4*

7.2	Exponential Functions and Their Derivatives	pg. 402: 1, 7–13 odd, 23–45 odd, 73-81 odd
7.3	Logarithmic Functions	pg. 409: 1–17 odd, 25–33 odd, 45, 47, 49
7.4	Derivatives of Logarithmic Functions	pg. 419: 1–29 odd, 41–51 odd, 69–79 odd
7.2*	The Natural Logarithmic Function	pg. 428: 1-35 odd, 59-71 odd
7.3*	The Natural Exponential Function	pg. 435: 5-11 odd, 27-47 odd, 75-83 odd
7.4*	General Logarithmic and Exponential Functions	pg. 445: 1-9 odd, 21-41 odd, 45-49 odd
7.6	Inverse Trigonometric Functions	pg. 461: 5–13 odd, 23–35 odd, 43,45,59–69 odd
7.7	Hyperbolic Functions	pg. 468: 7–23 odd, 31–47 odd, 57–65 odd
7.8	Indeterminate Forms and L'Hospital's Rule	pg. 478: 1–4, 5–63 odd, 93, 94, 95
	Review	pg. 483: 5–47 odd, 63–77 odd, 93–105 odd

Chapter 8: Techniques of Integration

8.1	Integration by Parts	pg. 493: 1–37 odd, 43–52

Instructor's option: 8.4 can be done immediately after 8.1.

8.2	Trigonometric Integrals	pg. 501: 1–31 odd
8.3	Trigonometric Substitution	pg. 508: 1–29 odd
8.4	Integration of Rational Functions by Partial Fractions	pg. 517: 1–29 odd, 39-49 odd
8.5	Strategy for Integration	pg. 524: 1–57 odd
8.8	Improper Integrals	pg. 551: 1, 5–31 odd, optional 49-54
	Review	pg. 554: 1–25 odd, 41–49 odd

Chapter 9: Further Applications of Integrals

9.1	Arc Length	pg. 566: 1–17 odd
9.2	Area of a Surface of Revolution	pg. 573: 1–15 odd, 25

Chapter 11: Parametric Equations and Polar Coordinates

11.3	Polar Coordinates	pg. 683: 1–11 odd, 15–25 odd 29–47 odd
11.4	Areas and lengths in Polar Coordinates	pg. 689: 1–31 odd, optional 45-48
11.5	Conic Sections	pg. 696: 1–47, odd

Section 11.6 is an instructor's option.

11.6	Conic Sections in Polar Coordinates	pg. 704: 1–15 odd
	Review	pg. 706: 9–15 odd, 31–39 odd, 45–55 odd

Remark: Some elements of sections 11.1 and 11.2 can be discussed as a general introduction to the curves covered in Chapters 9 and 11.

5/08 I.P.