

Baruch college  
Department of Mathematics

**MATH 3006 SYLLABUS  
INTEGRAL CALCULUS**

Textbook: Calculus – 9<sup>th</sup> Edition by Larson and Hostetler, Houghton Mifflin Publisher

LESSON #	TOPIC	READING	HOMEWORK
1	Trigonometric Function	Appendix D	Appendix is only available at the publisher website at college.hmco.com
2	Trigonometric Limits	1.3	P. 67: 27 – 35 (odd), 65 – 75 (odd)
3	Differentiation of Trigonometric Functions	2.2 2.3 2.4 2.5 3.9	P. 115: 21, 23, 37, 38 P. 126: 39, 40, 41, 47, 48, 51, 53, 59, 61 P. 137: 45, 46, 50, 51, 55, 59, 61, 63, 73, 79, 95 P. 146: 11, 13, 27 P. 240: 17, 18, 20
4	Mean Value Theorem	3.2	P. 176: 3, 39, 40, 43, 47, 83, 87
5, 6	Antiderivatives and Indefinite Integration	4.1 4.5	P. 255: 1-53 (odd), 57, 59, 71, 73, 74, 76, 81 P. 306: 1 – 6 (all), 11 – 41 (odd), 47 – 59 (odd), 67-73 (odd)
7	Area	4.2	P. 267: 1-9 (odd), 15-24 (odd), 27 – 51 (odd), 57, 59,
8	Riemann Sums and the Definite Integral	4.3	P. 278: 3, 5, 7, 13, 14, 17, 19, 23, 25, 31, 39, 41, 43
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	Inv. Trig. Functions and Integration	5.7	p. 387: #1, 2, 3, 7, 8, 9, 11, 13, 17, 21, 25, 27, 28, 29, 33, 37, 41, 44, 47, 49

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15	Volume: The Disc Method	7.2	p. 465: #1 – 17 (odd), 21, 23, 25, 27, 31, 36
16	Volume: The Shell Method	7.3	p. 474: #1 – 17 (odd), 25, 27, 29, 31, 45
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18	Integration by Parts	8.2	P. 533: #1, 3, 4, 5, 11, 15, 16, 25, 33, 35, 49, 51, 83, 85, 101
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