

MATHEMATICS ASSIGNMENTS  
 CALCULUS– MS. WILDSTROM  
 JANUARY 23-FEBRUARY 15, 2008

DATE	READING LECTURE	PROBLEMS DUE	WORKSHEET QUIZ/TEST
Wed.,	1-23	5.1 and	General remarks
Thurs.,	1-24	5-1,2	---
Fri.,	1-25	5-1,2	p. 249-250 #3-11 odd, 15,21,23,25,49,53,55,57.
Mon.,	1-28	5-1,2	p. 255-257 #1,9,13,15,19,25,27,29,37,43,51.
Tues.,	1-29	5-6	---
Wed.,	1-30		p. 291-292 #1-9odd,13,15-17,21,23-25,30,33,35,36.33,35,36.
Thurs.,	1-31	5-6	Complete answering questions from p. 291-292
Fri.,	2-1	5-3,4	---
Mon.,	2-4	5-4	p. 266, #9,12,15,18,27.
Tues.,	2-5	5-5	p. 273-274 #13,17-22,24,26,27,29,32,35.
Wed.,	2-6	5-7	p. 281-282 #1,6,7,9,17-29 odd
Thurs.,	2-7	Review	p. 298 #1-9.
Fri.,	2-8	Review	p. 300 #1,7-9,13,14,17,24,25,27,29,31,35,39-43,52.
Mon	2-11	Review	Loose Ends
Tues.,	2-12		NO SCHOOL!
Wed.,	2-13	6.1	
Thurs.,	2-14		NOTEBOOKS DUE!
Fri.,	2-15	6.1	p.311-313 #1-4,7,11,13,17,21,23,25,35.
			Journal (2-3)
			Worksheet
			CHAPTER 5 TEST
			Journal (2-17)

*OBJECTIVES:* Students should be able to:

1. Find the indefinite integrals of simple functions involving power rule or simple recognition of the known derivative of a trigonometric function (4.1)
2. Find the indefinite integrals of functions that involve the use of the inverse chain rule and the recognition of the basic “inner” function of a composed function and the need for the presence of the derivative of that expression in order to complete the integration; introduction of constants and neutralizing multipliers to form the necessary derivatives of expressions (4.2)
3. Review the use of summation (sigma  $\Sigma$ ) notation and use it to express areas “under” (ie between the graph of the curve and the x-axis) curves by approximating those areas as sums of areas of small inscribed or circumscribed rectangles. (4.3)
4. Use Riemann sums to find the areas under curves (understand partitions and calculating limits as the norm of the partitions approach zero) (4.4)
5. Use certain properties of definite integrals to evaluate definite integrals and find the average value of a function by defining it to be  $\frac{1}{b-a} \int_a^b f(x)dx$ . (4.5)
6. Use the Fundamental Theorem of Calculus to define a way to evaluate definite integrals as  $\int_a^b f(x)dx = F(b) - F(a)$ , where F is any antiderivative of f. (4.6)
7. Use the trapezoidal rule and Simpson’s rule for numerical integration (especially for those functions for which integration techniques are not known) (4.7)