

Applied Calculus 141

Instructor: Professor Schwarz, 449 Lake, #5654, m.schwarz@neu.edu

Office Hours: MWTH 10:30-11:30. Text: Applied Calculus, by Hughes-Hallett, Third Edition. The object of the course is for students to become comfortable with calculus and its applications. These ideas are introduced through examples. In class hour exams will be given about every two weeks. This work will become 60% of your grade. A two hour final exam will count 40% of your course grade. Late work will not be accepted. You may sign up at the Mathematic Tutoring center for additional help in this course.

Chp.	Sec.	Topics	Exercises
		Algebra Review	Appendix - Hughes Hallett: Precalculus
1	2	Linear functions	2,4,5,8,9,11,12,15,17,22,29
	3	Rates of change	1-4,,5,6,8,13,15,28,
	7	Exponential growth and decay	1,10,13,18,19
		Student Review 1.8,1.9,1.10	
2	1	Instantaneous rate of change	1-3,7,0,11,19,21,22
	2	The derivative function	1,9,12,19-26,30,pg,140, 5-8,9-12,24-33
3	1	Deriatives of powers and polynomials	1-36 (odd),46,59
	2	Exponential and Logarithmic functions	1-22 (odd), 23,25,34
	3	The chain rule	1-33 (odd), 36,42
	4	Product and Quotient Rule	3-33 (odd),35,39,41
	5	Derivatives of periodic functions	1-20 (odd) 21
4	1	Local maxima and minima (2.3,2.4)	8-13
	2	Inflection points	11-20
4	3	Global maxima and minima	3,15,17-21,41,43,44
	8	Surge function - Drug concentration	Examples from section - 1,3,6
5	1	Accumlated Change	2,17,
	2	Definite integral	2,18-27
	3	Integral and Area	19,20,25-32
	4	Using the Integral	1,3,4,11,19,20,31,32,33,36
	5	Fundamental Theorem	pg 267, 22,23,33,38
7	1	Constructing Antiderivatives	1-61 (odd)
		Uniform accelerated motion	handout
10	1	Mathematical modeling	4,7,9,11,14,15
10	2	Solutions	10,22
	4	Exponential growth and decay	1-6,9,10,13,14,15,17,18
	5	Applications and Modeling	1-8 (odd),13,16,27,28