

Spring 2017 -- MTH 131 APPLIED CALCULUS I

Syllabus & Calendar & Suggested Problems

Week of	Events	Sections	Suggested Practice Problems
Jan 23	Gateway Exam 1 st class	1.1 function definition 1.2 linear function	1.1: 7,9,11,13,14,15,21,22,25 1.2: odds 1-17,21,25
Jan 30		1.3 average rate of change 1.5 exponential function 1.6 natural logarithm	1.3: 1,3,4,7,9,11,13,15,21,27,30,31,33 1.5: odds 1-7,11,17,23,24,29,33 1.6: 1,7,9,11,15,16,21,odd 25, 33,36,43,47
Feb 6		1.7 exponential growth/decay 1.10 periodic function 2.1 instantaneous rate of change	1.7: odd 3-9,13,15,odd 23-31 1.10: 1,3,5,9,11,17,19,21,25,29 2.1: 3,4,5,9,11,17,19,20,21
Feb 13		2.2 derivative function 2.3 interpret. of derivative Limits	2.2: 1-9 odd, 18-21,27 2.3: 5,7,11,15,17,23,29,31 Extra materials
Feb 20	Exam I on 23rd	Limits, continuity, def. of derivative	Extra materials p.135: 1,3,5,9,11,13,15,17,19,21,27,35,37,39
Feb 27		2.4 second derivative 3.1 dev for power/polynomials 3.2 dev exponential/logarithm	2.4: 1,2,3,11,13,17,20,23 3.1: 1-37 odd, 47,49,51,53,62 3.2: 1-27 odd,37,41,45,47
Mar 6		3.3 the chain rule 3.4 product/quotient rule 3.5 dev for periodic functions	3.3: 1-27,34,37,49 3.4: 1,3-31,35 3.5: 1-25 odd;
Mar 13	Spring Break		
Mar 20	Exam II on 23rd	Focus on Differentiation,	p.165: 15,21,35,37,43,49,61,62,71, p.174: 1-63odd;
Mar 27		4.1 local max/min 4.2 inflection points 4.3 global max/min	4.1: 3,8,9,10,11,15,17,20,33 4.2: 10,11-23odd, 4.3: 9,16-19,23,27,29
April 3		5.1 accumulated change 5.2 the definite integral 5.3 definite integral as area	5.1: 3-15odd, 19,29,31 5.2: 1,3,5,7,9,11,15,19,21,31 5.3: 1-13odd,19,21,25,27,29
April 10		5.4 interpret the def. integral 5.5+6.1 total change and antiderivative num/graph 6.2 indefinite integral	5.4: 1,5,7,9,11,13,17,18,24 5.5: 1,14,15; 6.1: 5,7,8,21,22,23,24 6.2: 1-9odd,12,15-73odd
April 17	Exam III on 20th	6.3 FTC 5.6 average value	6.3: 1-21,25 5.6: 1,3,4,5,10,11
April 24		4.7 logistic growth 4.8 surge function Review	4.7: 1,7,8,13,14 4.8: 1,3,6,8,
May 1	Last class	Review	