MAT181 Calculus I
Course Schedule & Partial Homework
Siena Heights University
Fall 2015

- **Indicates the week is missing one or more days**

This is a list of recommended problems, by section. Contents will change/grow as the semester progresses, so check this page frequently. Attempt the problems as we complete the section listed, ask questions in class or in my office. You are not required to do every problem, but should do enough so that you're comfortable with the entire section.

Week	Section	Topic	Problems
1	1.1	Function Representations	3, 7-17 odd
	1.2	Models and Function Catalog	1, 3, 5, 7, 9, 13, 15, 17, 19, 21
	1.3	New Functions From Old	1, 3, 5, 7, 9, 13, 15, 21, 29, 33, 39, 41, 43, 50, 51
2*	1.4	Graphing Calculators	
	1.5	Exponential Functions	1-29 odd
3	1.6	Inverse Functions	1-41 odd
		Exam Ch 1	
	2.1	Tangent & Velocity	
4	2.2	Limit Of A Function	
	2.3	Limits Using the Limit Laws	
	2.4	Formal Definition Of a Limit	
5*	2.5	Continuity	
	2.6	Limits At Infinity	
6	2.7	Derivatives; Rate of Change	
	2.8	Derivative Function	
		Exam Ch 2	
7	3.1	Derivatives Of Polynomials & Exp	
	3.2	Product & Quotient Rules	
8	3.3	Trig Functions	
	3.4	Chain Rule	
	3.5	Implicit Differentiation	
	3.6	Logarithmic Functions	
9	3.7	Rates Of Change In Natural Sciences	
	3.8	Exponential Growth And Decay	
	3.9	Related Rates; Linear Approximation	
10		Exam Ch 3	
	4.1	Max and Min Values	
	4.2	Mean Value Theorem	

11	4.3	Derivatives And The Graph	
	4.4	Indeterminants and L'Hospital's Rule	
	4.5	Curve Sketching	
12	4.6	Graphing Calculators	
	4.7	Optimization Problems	
	4.8	Newton's Method For Approximate Roots	
13*		Exam Sec 4.1 – 4.8	
	4.9	Antiderivatives	
14	5.1	Intro To Area And Distance	
	5.2	Indefinite Integrals	
	5.3	Fundamental Theorem Of Calculus	
15	5.4	Definite Integrals & Net Change	
	5.5	Integration By Substitution	
		Review For Final	