

**MATH 1210: CALCULUS I**  
**5 SEMESTER HOURS**  
**FALL SEMESER 2011**  
**CLASSROOM: NIB 133**

**INSTRUCTOR: MORTENSEN**  
**OFFICE: NIB 133B**  
**PHONE: 652-7764**  
**OFFICE HOURS: 10-11**

**TEXTBOOK: CALCULUS, Concepts and Contexts, 4th Edition; James Stewart**

**MATERIALS NEEDED:** Graphing Calculator is required. The TI-89 is strongly recommended. The teacher will use TI-89

**MATHEMATICS AT DIXIE COLLEGE.** All classes in mathematics at Dixie College support the general education goal of the college. Within the limitations imposed by the nature of mathematics (i.e. the dependency on prior learning and the need for content fluency), each class will:

- Require students to perform mathematical processes including fractions, percentages, decimals, proportions/ratios, algebraic equations and or calculus techniques
- Provide students with application problems that use a variety of methods including arithmetical, algebraic and geometric methods.
- Challenge students to make inferences from mathematical models that include formulas, graphs and tables.
- Provide students with real-life applications that use a variety of mathematical functions

**OBJECTIVES:** Upon successful completion of Math 1210, a student will demonstrate through testing the ability to:

1. Define and evaluate limits.
2. Define and identify continuity and differentiability.
3. Apply limits to graphing techniques.
4. Define the derivative.
5. Use formulas for differentiation.
6. Use the derivative to find tangents to curves.
7. Apply the derivative in problems involving extrema and related rates
8. Define the definite integral.
9. Use L'Hospital's Rule to evaluate limits.
10. Perform integrations by various techniques (parts, substitution, and partial fractions)
11. Perform numerical integration.
12. Approximate area under curves.

**CLASS ATTENDANCE:** In order to be successful in mathematics, you must choose to attend class on a regular basis. Statistics have definitely shown that grades improve with better attendance. Make-up exams as a general rule will not be given, the teacher may allow them in **rare** cases.

**CLASS PARTICIPATION:** Be willing to be involved in the class as an active participant. Ask questions, contribute toward solutions, and be interested in the class activities. In order to be successful, you must be involved as a participant, not on the sidelines as a spectator.

**MAKING A FRIEND IN THE CLASS:** Attempt to make a friend in your class. You may find you enjoy sitting together and drawing support and encouragement from one another. Study together whenever possible!!

**GETTING HELP:** Getting the right kind of help at the right time can be a key ingredient to being successful in math. When you have gone to class on a regular basis, taken careful notes, read your text carefully, diligently done your homework, thus making every effort possible to learn the mathematical skills, you may find that you are still having difficulty. If this is the case, then you need to seek help. Make an appointment with the instructor to find out what help is available to you in the form of instructor time, tutoring service, math labs and computer software.

**HOMEWORK ASSIGNMENTS:** Keep in mind that math is a skill that can only be learned and mastered by doing it yourself with lots and lots of practice. **There is no other way!** Set aside some time each day for doing homework assignments. Do not attempt to do a whole chapter's assignments at one sitting. That is a disaster! **A minimum of two hours** spent studying outside of class for each hour in class is usually required for college courses.

**GRADING:** During the semester, 5 tests will be given. They will be worth 100 points each. These tests will mostly contain free response questions. The homework is graded on completion and is worth 20 points each chapter(s). The final exam will be comprehensive and worth 200 points. **All** tests will count toward your grade. The lowest test score can be replaced by the percent on the final exam. Make-up exams as a general rule will not be given, the teacher may allow them in **rare** cases. **Reading quizzes will be given at the discretion of the teacher.**

**GRADING SCALE:**

94%-100%=A	90%-93%=A-	87%-89%=B+	83%-86%=B
80%-82%=B-	75%-79%=C+	70%-74%=C	65%-69%=C-
60%-64%=D+	55%-59%=D	50%-54%=D-	0%-50%=F

**CODE OF CONDUCT:** Dishonesty, including, but not limited to, cheating, plagiarism, or knowingly furnishing false information to the college, will result in expulsion from the class.

**MATH 1210-CALCULUS FALL 2011****(This is a tentative schedule. The instructor reserves the right to change it.)**

<b>DATE</b>	<b>SEC.</b>	<b>ASSIGNMENT</b>				
<b>AUG.</b> 22	1.1	1-11 ODDS,15,25-31 ODDS				
23	1.1	39,43,45,47,49,53,55	<b>SEPT.</b> 26	3.3	1-27 ODDS	
24	1.2	3,5,9,17,19,20	27	3.3	28,29,31,37,39,41,43,45,49	
25	1.3	1,3,5,7,13,21,29,31,40,41,43,51,53	28	3.4	1-43 ODDS,	
26	1.5	1,2,3,4,7,11,19,21,24,29,31,35	29	3.4	49,51,55,61,65,67,79,81,86	
<b>AUG.</b> 29	1.6	3-11 odds, 21,25,35-41,49,51	<b>30</b>	<b>TBA</b>		
30	1.7	1-19 ODDS, 27,42	<b>OCT.</b> 3	3.5	3-27 ODD,41,43	
31	CH. 1 REVIEW		4	3.6	1-9 ODDS	
<b>SEPT.</b> 1	<b>CH. 1 TEST(part 1)</b>		5	3.6	17,19,21,37,39	
<b>TBA</b>	<b>CH. 1 TEST(part 2)</b>		6	3.7	3-23 ODDS,33-43 ODD,47	
2	2.1	1,3,5,7	7	3.8	1,7,9,10,14	
<b>SEPT.</b> 5	<b>LABOR DAY (NO SCHOOL)</b>		<b>OCT.</b> 10	3.8	15,20,29,30,31	
6	2.2	3,5,15,17,21,31	11	3.9	5,7,9,25,29	
7	2.3	3-23 ODDS,27,29,31,37,38,49	12	CH.3 REVIEW		
8	2.4	3,15-18,27-35 ODD,41,43,51,55	<b>13-14 SEMESTER BREAK(NO SCHOOL)</b>			
9	2.5	3,15-39 ODDS, 53	<b>OCT.</b> 17	CH. 3 REVIEW <b>LAST DAY TO DROP</b>		
<b>SEPT.</b> 12	2.6	3-9 ODD, 16-21,23-39 ODD	<b>18</b>	<b>CH. 3 TEST PART 1</b>		
13	2.7	3-9 ODD,14,19-29ODD, 41-43,45,47	<b>TBA</b>	<b>CH. 3 TEST PART 2</b>		
14	2.8	1-11ODD,15,19,23,25-29,31	19	4.1	1-15 ODD	
15	CH. 2 REVIEW		20	4.1	20,22,26,29,30	
<b>16</b>	<b>CH. 2 TEST(PART 1)</b>		21	4.2	1,3,5,23-43 ODD,47,53,57	
<b>TBA</b>	<b>CH. 2 TEST(PART 2)</b>		<b>OCT.</b> 24	4.2	CONTINUED	
<b>SEPT.</b> 19	3.1	3-33 ODDS,41-55 ODDS,65,69,71	25	4.3	6,7-15 ODD,21-33	
20	3.2	1-31 ODDS	ODD,59,63,65	26	4.5	1-45 ODDS
21	3.2	41-47 ODDS,51,53	27	4.5	CONTINUED	
<b>22-23</b>	<b>TBA</b>		28	4.6	2,5,9,11,12,14	

				18	5.6	1-29 ODDS
<b>OCT.</b>	31	4.6	15,23,25,26,38,57	<b>NOV.</b>	21	5.6 CONTINUED
NOV.	1	4.7	5,11,17,19,21		22	5.7 1-13 ODDS
	2	4.8	1-35 ODD		<b>23-25</b>	<b>THANKSGIVING BREAK NO SCHOOL</b>
	3	4.8	41,43,49	<b>NOV.</b>	28	5.7 21,29,31
	4	CH. 4 REVIEW			29	5.9 7-15 ODDS
<b>NOV.</b>	7	CH. 4 REVIEW			30	5.10 1-33 ODDS
	8	<b>CH. 4 TEST PART 1</b>		<b>DEC.</b>	1	5.10 43,51,61
	<b>TBA</b>	<b>CH. 4 TEST PART 2</b>			2	CHAPTER 5 REVIEW
	9	5.1	3,5,17,21	<b>DEC.</b>	5	CHAPTER 5 REVIEW
	10	5.2	17,19,21,23,25,31,33,35,37,39,41,43,51		<b>6</b>	<b>CHAPTER 5 TEST PART 1</b>
	11	5.3	1-31 ODDS, 43-49 ODD,59,61		<b>7</b>	<b>CHAPTER 5 TEST PART 2</b>
<b>NOV.</b>	14	5.4	3,7-17 ODD,21,23		8	TBA/FINAL REVIEW
	<b>15</b>	<b>CAREER DAY</b>			9	TBA/FINAL REVIEW
	16	5.5	1-61 E.O.O.	<b>DEC.</b>	16	<b>FINAL TEST 10-12</b>
	17	5.5	CONTINUED			