MATH 121 Section 02
Spring 2008 MTRF 11:15am-12:05pm
MOD 4
Dr. Chad A.S. Mullikin

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General Information : Lectures will be held MTRF from 11:15am until 12:05pm in MOD 4. There will be some class time allowed for solving problems. However, it may be the case that this is not sufficient. If you need more help you are *encouraged* to come talk to me during my office hours.

My office hours (AB 270) are as follows:

Monday	9:10-11:10, 12:30-2:30
Tuesday	12:30-2:30
Wednesday	None
Thursday	12:30-2:30
Friday	9:10-11:10

Textbook : Calculus 6^{th} ed., Stewart.

Course Description : Analytic geometry, functions, limits, continuity, the derivative and its applications, the integral and its applications. Prerequisite: MTH 111, satisfactory performance on mathematics placement examination or equivalent demonstrated proficiency.

Course Goals : This course is designed to help improve critical thinking and problem solving skills. Finding an answer to a problem is not always as valuable as the path taken to the solution.

Course Objectives : This course develops the fundamental concepts and techniques of calculus while at the same time promoting abstract problem solving skills. Topics include: limits; the derivative and its applications; indefinite integrals and definite integrals; applications of integrals.

Homework : It is critically important that a student of mathematics work problems. Simply following along in class is rarely sufficient. At the beginning of each week I will assign homework that will be collected on the following Monday. The homework set will include several suggested problems as well as as some more challenging problems. The latter will be collected and graded. While the suggested problems will not be graded, they will be used to construct exam problems. If you have any questions please feel free to email me or see me in my office hours. If you can not make my scheduled office hours then let me know and we will set up an alternate time.

Homework is to be put on the desk in the classroom at the **beginning** of the class they are to be collected. **Homework will not be accepted late for any reason.**

Exams : There will be four closed book in class exams as well as a cumulative final examination. The in class exams will consist of roughly 6 or 7 problems typical of the suggested exercises from the homework. You may use a scientific calculator on each exam. Calculators that perform symbolic manipulation or that are programmable are *not* allowed. The tentative dates for these exams are as follows.

Test 1: February 1st 2008
Test 2: February 29th 2008
Test 3: March 20th 2008
Test 4: April 15th 2008
Final Exam: Tuesday May 6th 2008 9:00 - 11:00 am

Any student with a valid excuse for missing an exam must obtain permission to reschedule well before the examination date. Please let me know of any conflicts immediately.

Attendance : Attendance is required.

Grading : The assignments are weighted as follows:

Tests :35%
Homework :35%
Final Exam :30%

Letter grades are awarded according to the following:

$97 \leq$ **A+**
$93 \leq$ **A** < 97
$90 \leq$ **A-** < 93
$87 \leq$ **B+** < 90
$83 \leq$ **B** < 87
$80 \leq$ **B-** < 83
$77 \leq$ **C+** < 80
$73 \leq$ **C** < 77
$70 \leq$ **C-** < 73
$67 \leq$ **D+** < 70
$63 \leq$ **D** < 67
$60 \leq$ **D-** < 63
F < 60

Accommodations : Students who want to receive disabilities accommodations should contact Mrs. Dunklin, Coordinator for Student Support Services at 380-3470 as soon as possible so that warranted accommodations can be arranged. Her office is located in Student Academic Services, 1st floor, Administration Building.

Tentative Schedule : This schedule is subject to change as needed.

Jan 10 : Introduction
Jan 4 : Review
Jan 14 : The Limit of a Function
Jan 15 : The Limit of a Function
Jan 17 : Calculating Limits Using the Limit Laws
Jan 18 : The Precise Definition of a Limit
Jan 21 : MLK Day - no classes
Jan 22 : The Precise Definition of a Limit
Jan 24 : Continuity
Jan 25 : Continuity
Jan 28 : Tangents, Velocities, and Other Rates of Change
Jan 29 : Tangents, Velocities, and Other Rates of Change
Jan 31 : Review
Feb 1 : **TEST 1**
Feb 4 : Mardi Gras - no classes
Feb 5 : Mardi Gras - no classes
Feb 7 : Derivatives
Feb 8 : The Derivative as a Function
Feb 11 : The Derivative as a Function
Feb 12 : Rates of Change in the Natural and Social Sciences
Feb 14 : Derivatives of Trigonometric Functions
Feb 15 : The Chain Rule
Feb 18 : Implicit Differentiation
Feb 19 : Higher Derivatives
Feb 21 : Related Rates
Feb 22 : Related Rates
Feb 25 : Linear Approximations and Differentials
Feb 26 : Linear Approximations and Differentials
Feb 28 : Review
Feb 29 : **TEST 2**
Mar 3 : Newton's Method
Mar 4 : Maximum and Minimum Values
Mar 6 : The Mean Value Theorem
Mar 7 : How Derivatives Affect the Shape of a Graph
Mar 10 : How Derivatives Affect the Shape of a Graph
Mar 11 : Limits at Infinity, Horizontal Asymptotes
Mar 13 : Summary of Curve Sketching
Mar 14 : Summary of Curve Sketching
Mar 17 : Optimization Problems
Mar 18 : Review
Mar 20 : **TEST 3**
Mar 21 : Spring Break - no classes
Mar 24 : Spring Break - no classes
Mar 25 : Spring Break - no classes
Mar 27 : Spring Break - no classes
Mar 28 : Spring Break - no classes
Apr 1 : The Definite Integral
Apr 3 : The Definite Integral
Apr 4 : The Fundamental Theorem of Calculus
Apr 7 : Indefinite Integrals and the Net Change Theorem

Apr 8 : The Substitution Rule
Apr 10 : The Substitution Rule
Apr 11 : Areas Between Curves
Apr 14 : Review
Apr 15 : **TEST 4**
Apr 17 : Volumes
Apr 18 : Volumes
Apr 21 : Volumes by Cylindrical Shells
Apr 22 : Volumes by Cylindrical Shells
Apr 24 : Mystery Topic
Apr 25 : Mystery Topic
Apr 28 : Review
Apr 29 : Review
May 6 : **FINAL EXAMINATION** 9:00am-11:00am

Caveat Discipulus: This syllabus is subject to change as necessary.