

Syllabus  
Applied Calculus I  
Math. 1325.502  
Thurs. 7:00 - 9:45 PM  
Room JO3.516  
Spring 2006

**Instructor:** Mr. Norman Aaron

**Textbook:** "Calculus with Applications", 8<sup>th</sup> edition, by Lial, Greenwell and Miller

**Prerequisite:** Competence in basic algebra

**Calculator:** A scientific calculator is recommended, such as a TI-30Xa. Calculators having alphabetic or graphic displays or stored program capacity, are not permitted. Possession of such on a exam or quiz is an academic integrity infraction.

**Homework:** Your homework problems are indicated below. Odd number problems only are assigned, except as indicated. The answers are given in the back of the book, as well as the solution manual available in the book store. A TA assigned to this class is available throughout the week for help, as well as in the Math Lab, which is located in MC 2.402. Please note a homework quiz will be given each week on the assigned homework, so be sure to keep up to date and complete each homework assignment prior to coming to class.

**Course Description:** Applied Calculus I "Functions and graphs, differentiation, maxima and minima, exponential and logarithmic functions, applications of integrals." The main goal of this course is the presentation of some fundamental techniques of calculus along with some applications. The concept of limits, derivatives, graphing, and integration will be developed.

Chapter 2: Nonlinear Functions: 2.2, 2.4, 2.5, (2.6, optional)

Chapter 3: The Derivative: 3.1, 3.2, 3.2, 3.4, 3.5

Chapter 4: Calculating the Derivative: 4.1, 4.2, 4.3, 4.4, 4.5

Chapter 5: Graphs and Derivative: 5.1, 5.2, 5.3, 5.4

Chapter 6: Application of the Derivative: 6.1, 6.2, 6.3, 6.4, 6.5, 6.6

Chapter 7, chapter sections if time permits: Integration: 7.1, 7.2, 7.3, 7.4, 7.5

**Examinations:** Note: There will be a simple quiz on algebra competency at the first class meeting. There will be two major examinations and a comprehensive final. In addition, there will be a homework quiz at the beginning of each class, covering the previous class's homework assignment. There are no make-ups examinations. Missed exams or homework quizzes will count as zero. All exams, as well as the final, will be given in the regular classroom. On each of the examinations and homework quizzes, you must show your work. If there is no work shown, there will be no credit. All students must take the final exam at the specified time and place.

**Calculation of the Final Grade:** Each correct problem on the homework quizzes will count one point. The total number of homework points for the semester, will become the basis for the homework grade. The homework grade, for each student, for the semester, will be scaled relative to the entire class. The lowest grade between the two major exams and the homework grade will be dropped. The two remaining grades will count 30%, each, plus the final exam grade will count 40% of the final grade. This grade will be converted to a numerical grade between 0 and 100. Based on this numerical grade, the letter grade will be determined as follows:

97 - 100 = A +; 94 - 96 = A; 90 - 93 = A -; 87 - 89 = B +; 84 - 86 = B; 80 - 83 = B -; 77 - 79 = C +; 74 - 76 = C; 70 - 73 = C -; 65 - 69 = D +; 60 - 64 = D; 55 - 59 = D -; 0 - 54 = F

**Calculation of the Mid-Semester Grade:** The mid-semester will be composed of 50% for a home work grade and 50% for a major test grade.

**Homework Schedule:** The homework is due the class following the chapter lecture. There will be a home work quiz at the beginning of each class period, including an algebra competency the first class meeting. Problem numbers are for odd numbered problems only, except as indicated. Revisions and homework TBD (to be determined) will be announced in class.

2.2: 3-7, 9, 13, 15, 19, 47  
2.4: 13-19, 33-37, 45  
2.5: 1-23, 27-61, 69

3.1: 5-9, 21, 23, 29-33, 37, 43, 45, 77  
3.2: 1-6 (all), 7-13, 19, 25  
3.3: 1, 3, 9, 10  
3.4: 11-21, 31, 33  
3.5: 7, 9, 11

**First major exam.**

4.1: TBD  
4.2: TBD  
4.3: TBD  
4.4: TBD  
4.4: TBD

5.1: TBD  
5.2: TBD  
5.3: TBD  
5.4: TBD

**Second major exam.**

6.1: TBD  
6.2: TBD  
6.3: TBD  
6.4: TBD  
6.5: TBD  
6.6 : TBD

7.1: TBD  
7.2: TBD  
7.3: TBD  
7.4 : TBD  
7.5: TBD

**Comprehensive final exam.** Presently scheduled for Thurs., April 27, 2006, 7 PM to 9:45 PM, in the regular classroom.