

Applied Calculus I Syllabus
MATH 1325.002
MWF 12:00-12:50 p.m.
JO 3.516
Fall 2005

Instructor: Dr. Paul Stanford

Text Book: *Calculus with Applications*, Eighth Edition, by Lial, Greenwell and Miller

Contact Information

Email: paul.stanford@utdallas.edu

Office hours: MW 4:00-5:00 p.m. in [ECSN 3.910](#), MW 8:15-8:30 p.m. in [FN 2.104](#), and by appointment.

Prerequisite: Competence in basic algebra.

Teaching Assistant: Xiuwev Zheng in [FO 1.601](#).

Problem Assignment

Problems will be assigned on a regular basis. Answers to most of these problems are given at the back of the textbook. Complete solutions to many of these problems may be found in the Solutions Manual, which is on reserve at the library (and may be available in the bookstore). You should work several problems of each type, and working more than the class assignments is strongly encouraged. Do not use the solutions at the back of the textbook before you have exhausted all possibilities (including asking the TA and the instructor).

Course Description

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

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

Chapter 3: The Derivative (sections 3.1, 3.2, 3.3, 3.4, 3.5).

Chapter 4: Calculating the Derivative (sections 4.1, 4.2, 4.3, 4.4, 4.5).

Chapter 5: Graphs and the Derivative (sections 5.1, 5.2, 5.3, 5.4).

Chapter 6: Applications of the Derivative (sections 6.1, 6.2, 6.3, 6.4, 6.5, 6.6).

Chapter 7: Integration (sections 7.1, 7.2, 7.3, 7.4, 7.5) - time permitting.

Examinations

There will be two regular examinations and a final examination. NO MAKE-UPS. Missed exams are a zero. See below for dates and the calculation of grades. Calculators will NOT be allowed, except for certain quizzes where non-graphing calculators may be permitted.

be tolerated. Students are required to inform the lecturer of suspected honor code violations. On all problems, you must show your work. No work, no credit (even for correct answers). In general, there will be no make up exams or quizzes. There will be no incompletes except in the direst of situations.

Calculation of Grade

Each quiz is worth 25 points. The lowest two quiz scores will be dropped. The remaining quizzes are counted and converted to a percentage, giving a possible total of 100 points. Each regular examination is also worth 100 points. Only the best two scores from the quiz total or the regular exams will be used in the grade calculation, giving a possible total of 200 points. (In other words, the lowest of the three scores is dropped.) The comprehensive final examination is worth 200 points. This score cannot be dropped.

These scores are weighted so that the best two of three scores contribute 60% towards the overall grade, and the final contributes 40% toward the overall grade.

Grade Scale

[97,100] A+
[93,97) A
[90,93) A-
[87,90) B+
[83,87) B
[80,83) B-
[77,80) C+
[73,77) C
[70,73) C-
[65,70) D+
[60,65) D
[55,60) D-
[0, 55) F

Midterm grades

Midterm grades will be computed and submitted to the records office when requested. This grade will be computed in the following manner: Average of all quizzes up to this time (no drops) 50% Average of all exams up to this time (no drops) 50%

Important Dates (and see [Academic Calendar](#))

Friday, August 19th: First Day of Class.

Monday, September 5th: University Holiday: Labor Day.

Friday, September 2nd: Last day to drop without a W.

Wednesday September 21st: **Exam I** (subject to change).

Thursday, September 22nd: WF or WP withdraw period begins.

Thursday, October 20th: Last day to withdraw with WF/WP.

Thursday, November 24th: University Holiday: Thanksgiving Day.

Friday, November 25th: University Holiday: Thanksgiving.

Monday, November 28th: Last Day of Class.

Wednesday November 30th: Comprehensive Final, 11:00 a.m. - 1:45 p.m.

Homework Assignments

2.2 1-41 odd

2.4 1-23 odd; 31-37 odd; 43

2.5 1-31 odd; 47, 57, 65, 71

3.1 1-12; 21-29 odd; 31-35 odd; 37, 39, 41; 43-49 odd; 65, 67, 69; 77

3.2 1-6; 7-17 odd; 15-19 odd; 25-29

3.3 1-7 odd; 9; 23, 27

3.4 1,4; 5-10; 11-15 odd; 17-21 odd; 31-34; 36, 37; 45

3.5 1-13 odd; 15, 17

4.1 1-21 odd; 22,23; 31, 35, 37, 41, 43, 51, 53, 55

4.2 1-9 odd; 11-25 odd; 27, 31; 37

4.3 1-6; 7-13 odd; 17-21 odd; 23-41 odd; 45,49; 53,55,57

4.4 1-29 odd; 33, 35

4.5 1-39 odd; 45,47,49

5.1 1-8; 9-27 odd; 34, 35, 36

5.2 1-8; 9-27 odd; 29; 39, 41, 43

5.3 1-15 odd; 17-23 odd; 25; 27-32 all; 33-43 odd; 49-53 odd; 59,61

5.4 1; 3-29 odd; 35, 37, 39

6.1 1-8; 9; 11-23 odd; 27-31 odd; 32; 33,34; 35,37

6.2 3; 5-13 odd; 17,19 21,23,25,27; 43

6.3 5-11 odd; 15-19 odd; 21, 23

6.4 1-15 odd; 17-21 odd; 23-27 odd; 31, 33, 34,38

6.5 1-7 odd; 9-13 odd; 21-25 odd

6.6 1, 3, 6, 7; 9-15 odd; 17,19,21; 27,33,35

7.1 5-41 odd; 43; 45-55 odd; 57,59; 65

7.2 2, 3-33 odd; 35,36; 37,39

7.3 1,3; 15,16-20 all; 23,24,25,27; 29,31

7.4 1-29 odd; 31-39 odd; 41,42,43; 44,45,50,51; 53,54; 60,62,64,65,66,67

7.5 1,5,7,11,17; 25-35 odd; 37