

Applied Calculus I Syllabus

MATH 1325-002

MWF 11:00-11:50 a.m.

CB 1.112

Spring 2006

Instructor: Dr. Paul Stanford

Text Book: *Calculus with Applications*, eighth edition, by Lial, Greenwell and Miller

Contact Information

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Office hours: MTWR 4:00-5:00 p.m. in [ECSN 3.910](#), or by appointment.

Prerequisite: Competence in basic algebra.

Teaching Assistant: Yebin Zhang in [FO 1.601](#).

Resource: Math Learning Center [MC 2.412](#) (library) Phone: (972) 883-6707 Hours: MTWR 10am-8pm, F 10am-2pm, S 10am-2pm. The learning center offers one free 60 minute individual tutoring session per week. An appointment is required.

Problem Assignment

Problems will be assigned on a regular basis. See [homework](#) below. 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, and 2.6 *optional*).

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

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

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

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

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

Ground Rules:

Please be punctual and ensure that your electronic communication devices are turned off. Announcements are generally made at the beginning of class. If you miss class or arrive late, it is your responsibility to acquire any missed notes or announcements. Student participation in class is desired. However, please raise your hand to speak and avoid side conversations with your classmates. Attending university is a privilege, not a right. Behavior that infringes on the learning experience of your classmates will not be tolerated. Cheating, in any form constitutes an infraction of the academic integrity code and will be dealt with according to university disciplinary procedures.

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.

All students are expected to take the examinations at the announced time. Cheating will NOT 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-
[67,70) D+
[63,67) D
[60,63) D-
[0, 60) 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%.

WebCT Quiz and Exam scores as well as the supplemental course material will be posted on Webct. To access your scores, go to the website webct.utdallas.edu, (no www). You will need the Unix logon id and password assigned to you at registration. If you do not know your id, go to www.utdallas.edu, select Current Students then SIS and follow the instructions -- or you can go to the computing help desk. WebCT mail is the preferred method of communication. (If you use regular email, be sure to identify the course.)

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

Monday, January 9th: First Day of Class.

Monday, January 16th: University Holiday: Martin Luther King Jr. Day.

Wednesday, January 25th: Last day to drop without a W.

Monday, February 13th: WF or WP withdraw period begins.

Wednesday, February 15th: **Exam I** (subject to change).

Monday, March 6: Spring Break Begins.

Saturday, March 11: Spring Break Ends.

Thursday, March 16th: Last day to withdraw with WF/WP.

Wednesday, March 29th: **Exam II** (subject to change).

Monday, April 24th: Last Day of Class.

Monday May 1st: 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