

**MATH 1325-501, Spring 2005**  
**T 7:00-9:45 PM**  
**GR 3.420**

**Instructor:** Dr. Bentley Garrett  
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**Mailbox:** EC 3.214 (Lynne Asher's office)  
**Office hours:** T 5:00-6:45 PM

**Text:** *Calculus with Applications*, 8<sup>th</sup> Edition, Lial, Greenwell and Miller  
(Student Solutions Manual is recommended)

**Topics covered in this course:** functions and graphs, differentiation, maxima and minima, exponential and logarithmic functions, applications

**Text sections covered:** 2.2-2.6, 3.1-3.5, 4.1-4.5, 5.1-5.4, 6.1-6.6

<b>Grading:</b>	Exam/Quiz Average (see *)	70%
	Final Exam (comprehensive)	30%

\*There will be three (3) Midterm Exams as well as weekly Quizzes. For your final course grade, I will take your Quiz average and your 3 Exam grades and drop the lowest of these 4 grades. This average will then account for 70% of your final grade. I will drop the lowest one fourth of the quiz grades given before computing your Quiz Average.

Example grades:      Quizzes: 66, 70, 50, 100, 90, 80, 75, 75 (if eight quizzes given)  
Exam1: 75, Exam 2: 86, Exam3: 70, Final: 88  
Quiz Average:  $(100 + 90 + 80 + 75 + 75 + 70)/6 = 81.7$  (drop two)  
Final grade:  $.7*(75 + 86 + 81.7)/3 + .3*88 = 83.0$  (drop Exam3)

Grade Scale:	A+	96.5-100	C+	76.5-79.4
	A	92.5-96.4	C	72.5-76.4
	A-	89.5-92.4	C-	69.5-72.4
	B+	86.5-89.4	D+	66.5-69.4
	B	82.5-86.4	D	62.5-66.4
	B-	79.5-82.4	D-	59.5-62.4
			F	below 59.5

### **Class policies:**

- Exams must be taken in pencil. It is preferable that quizzes be taken in pencil as well.
- No make-up exams are given except under extraordinary circumstances. Solutions will be available on WebCT. (see \*\*)
- **There will be short weekly quizzes based on the previous week's homework. (No quizzes will be given during exam weeks.)** The number of quizzes given in the semester is dependent on the time factor. Solutions will be available on WebCT. (see \*\*)
- Homework will be assigned but not graded. However, it is essential that you work all problems thoroughly in order to succeed in this class. It is okay to discuss the problems with classmates, but make sure you can work them by yourself after you discuss.
- I am always looking for a solution – not the answer. In other words, I want to see all steps leading to the answer. Answers without any logical support will receive very little, if any, credit.
- It is essential that you attend all lectures to be successful in this class.
- All phones and pagers must be turned off during class.

**Calculators:** No graphing calculators are allowed – only scientific calculators, where appropriate. If you don't have a scientific calculator, borrow one for the semester or buy one – they are inexpensive.

**Exam dates: Exam1 – February 8, 2005**

**Exam2 – March 1, 2005**

**Exam3 – April 5, 2005**

**Final Exam – Tuesday, April 26, 7:00-9:45pm**

**Last drop day without a W - Jan. 28**

**Withdrawal period with WF/WP: Feb.14 - March 14**

**(Note: Exam dates are fixed, except under unusual circumstances.)**

### **Additional help:**

UTD Math Lab: located in McDermott Library in Room 2.412 (phone: 972-883-6707)  
The hours are 10am until 8pm, Monday through Thursday. On Friday the hours are 10am until 2pm. The Math Lab provides free walk-in tutoring for students.

Disability Services: contact Kerry Tate at 972-883-2098.

### **Online resources:**

\*\*WebCT: <http://webct.utdallas.edu> You must also enter your NETID username and password. Here, you will find the syllabus, problem sets, quiz solutions, and test solutions.

**Tentative class schedule:**

<b>DATE</b>	<b>SECTIONS COVERED</b>
January 11	Diagnostic Test
11	2.2 Quadratic functions: Translation and Reflection
18	2.4 Exponential Functions
18	2.5 Logarithmic Functions
25	3.1 Limits
25	3.2 Continuity
February 1	3.3 Rates of Change
1	3.4 Definition of the Derivative
1	3.5 Graphical Differentiation
8	<b>Exam 1</b>
8	4.1 Techniques of Finding Derivatives
15	4.2 Derivatives of Products and Quotients
15	4.3 The Chain Rule
22	4.4 Derivatives of Exponential Functions
22	4.5 Derivatives of Logarithmic Functions
March 1	<b>Exam 2</b>
1	5.1 Increasing and Decreasing Functions
8	<b>Spring Break</b>
15	5.2 Relative Extrema
15	5.3 Higher Derivatives, Concavity, and the Second Derivative Test
22	5.4 Curve Sketching
22	6.1 Absolute extrema
29	6.2 Applications of Extrema
29	6.3 Further Business Applications
April 5	<b>Exam 3</b>
5	6.4 Implicit Differentiation
12	6.5 Related Rates
12	6.6 Differentials: Linear Approximation
19	7.1 Antiderivatives, Review
26	<b>Final Exam – 7:00-9:45PM</b>