Math 2419-001 Fall 2005

CALCULUS I I GREEN 3.420 1:00 - 1:50 M.W.F.

INSTRUCTOR: F.R. ALLUM (972)883-6342 (fallum@utdallas.edu)

Text: CALCULUS by LARSON, HOSTETLER & EDWARDS, 8TH EDITION
STUDENT SOLUTION MANUAL AVAILABLE IN BOOKSTORE

You must be enrolled in problem section Math 2019-301, 303 or 305.

Help is available. If difficulties arise, the following suggestions may help you:
(I) Ask questions in your problem section
(ii) Contact the problem section instructor during office hours
(iii)Visit the MATH LAB (MC2.412; (972)883-6707)
(iv) You may be eligible for assistance through Special Services
(v) Contact the lecturer during office hours

Calculators It is assumed that you will use a scientific calculator in this class. Calculators with either graphing or non-numeric displays are forbidden for all quizzes and exams.

Assignment Problems Assignments will be selected odd numbered problems and possibly problems from the Chapter Review. Answers to these problems are given at the back of your text book. Complete solutions to these problems may be found in the Solutions Manual which is available in the book store. You should work several problems of each type. Don't slavishly copy the solutions from the manual. Try to work them without reference to the solutions manual. When you have finished the problem or when you have exhausted all possibilities, then you should refer to the solutions manual to verify your answer or to obtain a hint in order to complete the solution. These problems will be discussed in the problem sections.

Problem Sections There are 14 problem sessions this semester. At 10 of these meetings, a quiz will be given, lasting about 20 minutes. Only 8 of these quiz grades will be used in the calculation of your final grade. The T.A. conducting each section will answer questions on the assignments, supply additional background material, discuss the previous quiz, comment on your examinations and may ask you to work problems. Occasionally, the problem section may be used to remind you of material covered in previous courses and deemed essential to the present course. At all times feel free to ask questions during these problem sections.
Note: Quizzes will be given in the problem solving sections; examinations in the class meetings.

Examinations 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. In general, there will be no make up exams or quizzes (see below).

Grade: Each quiz will be worth 25 points. A list of Math 2417 questions is attached to this syllabus and is also available on my home page. Quiz 1 will contain several questions from this list or questions similar to those on the list. The best 8 out of the 10 quizzes (expressed as a percentage)will be used for your quiz grade.
Each of the three examinations will be worth 100 points and the comprehensive final will be worth 200 points. The best 3 out of the four quiz and examination grades plus the comprehensive final will be used to calculate your final grade. The final exam must be taken.

Example: Student J.T.M. has the following results:
Quiz grades 20, 15, 25, 18, 25, 19, 0, 10, 25, 21,

Quiz grade (168/200)100 = 84(drop 0,10)	
Examination 1	75
Examination 2	60
Examination 3	72
Comprehensive final	171 (count as two exams)

Average = (84+75+72+171) / 5 = 80.4...(a grade of B-)

Grade Scale

96.7 - 100	A+	76.7 - 79.9	C+
93.4 - 96.6	A	73.4 - 76.6	C
90.0 - 93.3	A-	70.0 - 73.3	C-
86.7 - 89.9	B+	66.7 - 69.9	D+
83.4 - 86.6	B	63.4 - 66.6	D
80.0 - 83.3	B-	60.0 - 63.3	D-
0.0 - 59.9	F		

Important Dates

September 05..	University Holiday
September 23	Examination I (subject to change)
October 13.	Mid-Term grade Reports Due
October 20....	Last day to withdraw with WP/WF
October 21	Examination II (Subject to change)
November 18.	Examination III (subject to change)
November 28.	Last day of classes
December 02 (Friday).	Comprehensive Final Exam at 11 A.M.

Note: Beginning October 21, undergraduates may drop a class for non-academic reasons only.

Note: The comprehensive final examination will be given in another location. (HH2.402)

Note: The mid-term examinations will be given in another location. (HH2.402)

The time of the mid term exams is the same as your class time, 1 pm

Grade of Incomplete "A grade of incomplete (X) may be assigned when a student's work has been satisfactory, but due to circumstances beyond the student's control, some part of the required work has not been completed. An X may not be assigned in lieu of an F or W. Allowing a student to "retake" an entire course during a subsequent semester, disregarding previous course performance, does not constitute an appropriate use of the grade of incomplete." In this course, an incomplete will only be considered if the student has a serious documentable, non-academic reason for missing more than one exam and not taking a make-up (e.g. illness in finals week).

INTERESTING INTERNET ADDRESSES

(1) http://www-groups.dcs.st-and.ac.uk/~history/Curves/Curves.html
(2) http://www.math2.org
(3) http://www.ecalculus.org/
(4)http://www.math.temple.edu/~cow/
(5)http:mathmit.edu/18.01/
(6)http:www.math.umn.edu/~rogness/quadrics/

HOME PAGE ADDRESS http://www.utdallas.edu/~fallum/

NOTE; Turn off cell phones and pagers during lectures and exams.

Problem Solving Classes (subject to change)

CLASS #	DATE: WEEK BEGINNING	DESCRIPTION
1	22 August	Quiz 1(Calculus 1)
2	29 August	Quiz 2
3	05 September	Quiz 3
4	12 September	Quiz 4
5	19 September	NO QUIZ THIS WEEK
6	26 September	Quiz 5
7	03 October	Quiz 6
8	10 October	Quiz 7
9	17 October	NO QUIZ THIS WEEK
10	24 October,	Quiz 8
11	31 October	Quiz 9
12	07 November	Quiz 10
13	14 November	NO QUIZ THIS WEEK
14	21 November	NO QUIZ THIS WEEK

MID-TERM EXAMS AT REGULAR CLASS TIME, 1.00 pm in HH2.402

FINAL EXAM 11:00 A M ; DECEMBER 02, 2005.

LOCATION OF FINAL EXAM - HH2.402.

MATH LAB HOURS

Monday-Thursday.....10:00 a.m. - 8:00 p.m.
Friday/Saturday.....10:00 a.m. - 2:00 p.m. Or by appointment (Ext. - 6707)

MATH 2419 MID TERM EXAMS

MATH 2419 mid-term exams will be held in HH2.402
Same time as regular class time, namely 1.00 pm on the following days

September 23, 2005 ,October 21, 2005, November 18, 2005

MATH 2419 FINAL EXAM

On Friday, December 02,2005, Math 2419-001 will meet for a comprehensive final exam in HH2.402 at 11:00 am..

MATH 2419 CALCULUS SYLLABUS
(Larson/Hostetler/Edwards)8th Edition

8. Integration Techniques, L'Hôspital's Rule, and Improper Integration

8.8 Improper Integrals

9. Infinite Series

9.1 Sequences
9.2 Series and Convergence
9.3 The Integral Test and P- Series
9.4 Comparisons of Series
9.5 Alternating Series
9.6 The Ratio and Root Tests
9.7 Taylor Polynomials and Approximations
9.8 Power Series
9.9 Representation of Functions by Power Series
9.10 Taylor and Maclaurin Series

10. Conics, Parametric Equations, and Polar Coordinates

10.2 Plane Curves and Parametric Equations
10.3 Parametric Equations and Calculus
10.4 Polar Coordinates and Polar Graphs
10.5 Area and Arc Length in Polar Coordinates

11. Vectors and the Geometry of Space

11.1 Vectors in the Plane
11.2 Space Coordinates and Vectors in Space
11.3 The Dot Product of TwoVectors
11.4 The Cross Product of TwoVectors in Space
11.5 Lines and Planes in Space
11.6 Surfaces in Space
11.7 Cylindrical and Spherical Coordinates

12. Vector-Valued Functions

12.1 Vector Valued Functions
12.2 Differentiation and Integration of Vector- Valued Functions
12.3 Velocity and Acceleration
12.4 Tangent Vectors and Normal Vectors
12.5 Arc Length and Curvature

13. Functions of Several Variables

13.1 Introduction to Functions of Several Variables.
13.2 Limits and Continuity
13.3 Partial Derivative
13.4 Differentials
13.5 Chain Rules for Functions of Several Variables
13.6 Directional Derivatives andGradients
13.7 Tangent Planes and Normal Lines
13.8 Extrema of Functions of Two Variables

13.9 Applications of Extrema of Functions of Two Variables
13.10 Lagrange Multipliers

14. Multiple Integration

14.1 Iterated Integrals and Area in the Plane
14.2 Double Integrals and Volume
14.3 Change of Variables: Polar Coordinates
14.6 Triple Integrals and Applications

Appendix B Proofs of Selected Theorems
Appendix C Integration Tables

ASSIGNMENTS MATH 2419 FALL 2005

LARSON, HOSTETLER EDWARDS. 8th Edition

SECTION 8.7 page 574: 1-35odd,37ab-53ab,odd,59,65,67,71,73,75,77,79ab,83,,91,93,97,99,109

SECTION 8.8 page 585: 1,3,5,7,9,15-47odd,71,73,83

SECTION 10.2 page 716: 1a,b,d,3-35odd,39,41,43,45,51,53,69

SECTION 10.3 page 725: 1-55odd

SECTION 10.4 page 736: 1,3,5,11,13,15,23,25,27,29,31,33,35,37,39,41,59,
65,67,73,75,77,79,81,83,85,87,89,91

SECTION 10.5 page 745: 1-25odd,37,39,45,47

SECTION 11.1 page 769: 1,3,5,7,9,11,13,15,17,19,21,23,25,27,29,31,33,35,37,39,41,
43,45,47,49,51,53,55,57, 63,65,67,83,93

SECTION 11.2 page 778: 1-31odd 35-87odd,91,93,95,97,99

SECTION 11.3 page 787: 1-37odd,43,45,47,49,73,79,81

SECTION 11.4 page 796: 1-19odd,31,33,35,37,41,43,45,47

SECTION 11.5 page 805: 1-29odd,33-51odd,55,57,59,61,75,81-99odd,

SECTION 12.1 page 837: 1,3,5,7,9,11,13,15,23,25,27,29,33,69,71,73,75,77,79

SECTION 12.2 page 846: 1,5,9-23odd,27-41odd,49-67odd

SECTION 12.3 page 854: 1,3,5,9,11,13,15,19,21,25,29.

SECTION 12.4 page 863 1-29odd,35-55odd,65,67,69

SECTION 12.5 page 875 1,3,5,9,11,13,21-39odd

SECTION 13.1 page 892: 1-27odd,31,33,35,37,49,51,53,55,78,83

SECTION 13.2 page 902: 5-21odd,25,27,33,41-53odd,69,61

SECTION 13.3 page 912: 1-39odd,45,47,51-67odd,73-85odd,99

SECTION 13.4 page 921: 1,3,5,7,9,11,13,15,31,33,37

SECTION 13.5 page 929: 1,3,5a,7a,9a,11,13,15,17,19a,21a,23-41odd,51,53,57,59,

SECTION 13.6 page 940: 1,3,5,7,9,11,13,15,17,19,21,23,25,27,29,31,33,35,37,41,43,45,49,55,57,59,61

SECTION 13.7 page 949: 1,3,5,7,9,11,13,15,17,19,21,23,25,27,29,31,33,49,51,

SECTION 13.8 page 958: 1,3,5,7,9,11,13,21,23,25,31,33,53,55,

SECTION 13.9 page 964: 5,7,9,13 SECTION 13.10 page 974: 1-25odd,31,33

SECTION 14.1 page 988: 1-33odd,37-63odd,

SECTION 14.2 page 997: 1,3,7,9,11,13,15,17,19,21,23,25,27,29,33,35,49,51,53,55

SECTION 14.3 page 1006: 1-31odd,37,39,41,

SECTION 14.6 page 1032: 1,3,5,7

SECTION 14.8 page 1047: 1,3,5,7

SECTION 9.1 page 602: 1-19odd, 25-41odd, 47-93odd

SECTION 9.2 page 612: 1-27odd,35-47odd,51-71odd,79,81,83,85,89a,b,117,119

SECTION 9.3 page 620: 1-35odd,79,81,83,85,87,89

SECTION 9.4 page 628: 3,5,7,9,15,17,19,21,23,25,27,29,33,35,41-61oddd,79-87odd

SECTION 9.5 page 636: 1,3,5,11-29odd,33,35,37a,39a,41a,43-61odd,79-87odd

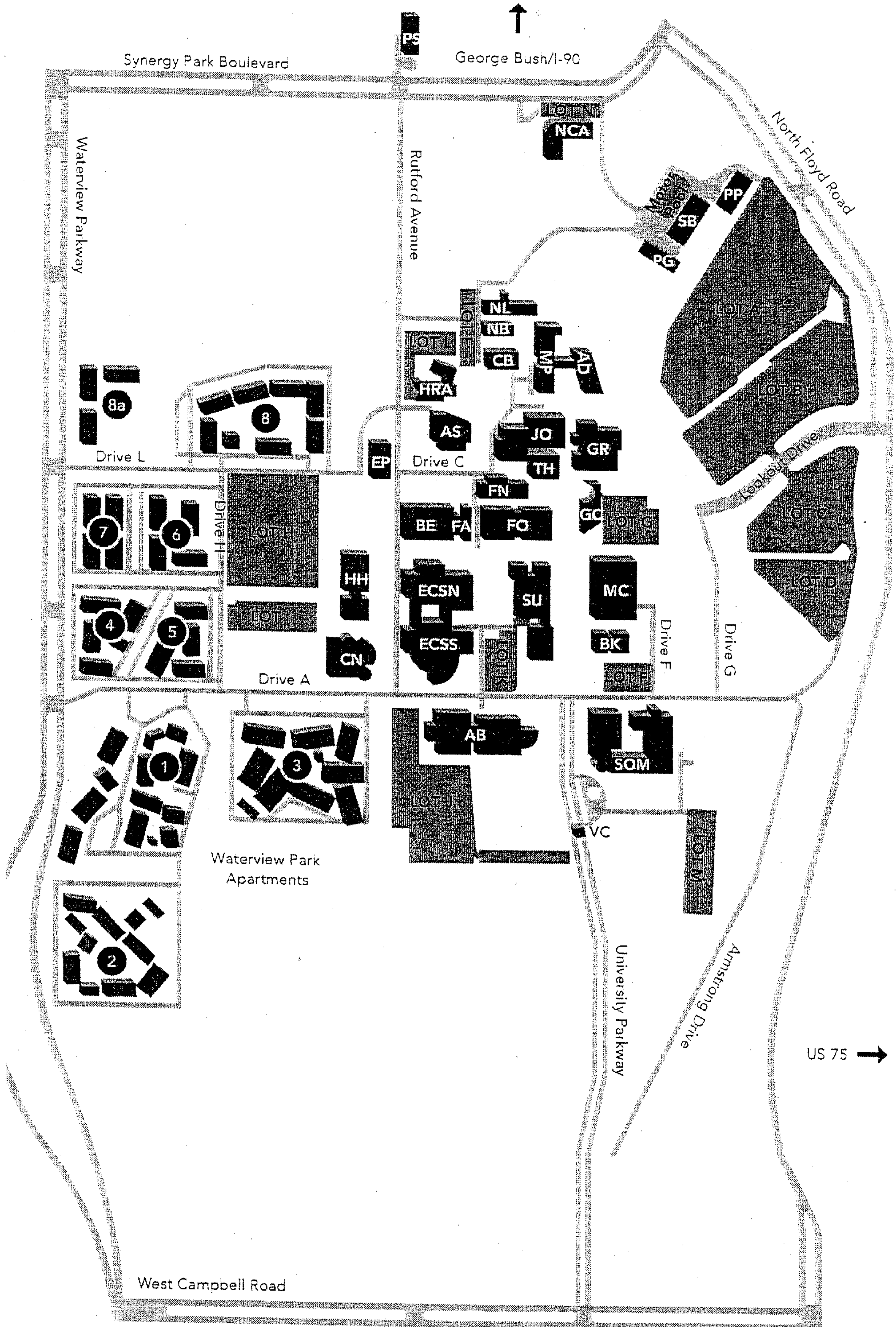
SECTION 9.6 page 645: 1,3,13,15,17,19,21,23,25,27,29,31,33,35,37,39,41,51-67odd

SECTION 9.7 page 656: 13,15,17,19,21,23,25,27,29,41,43,68

SECTION 9.8 page 666: 1-47odd

SECTION 9.9 page 674: 1-25odd,35,37,39,41,45,47

SECTION 9.10 page 685: 1,3,5,7,9,15-31odd,53,55,57,77,79,81


Synergy Park Boulevard
George Bush/I-90
PS
LOT N
NCA
North Floyd Road
Waterview Parkway
Rutford Avenue
Motor Pool
PP
SB
PG
LOT A
LOT B
Lookout Drive
LOT C
LOT D
NL
NB
CB
MP
AD
LOT E
LOT L
HRA
AS
JO
GR
TH
8a
8
Drive L
EP
Drive C
FN
GC
LOT G
BE
FA
FO
7
6
Drive H
LOT H
HH
ECSN
SU
MC
4
5
ECSS
BK
Drive F
Drive G
LOT K
LOT F
CN
Drive A
AB
SOM
1
3
LOT J
VC
LOT M
Waterview Park
Apartments
2
University Parkway
Armstrong Drive
US 75
West Campbell Road