

SYLLABUS

MATHEMATICS 141.014

Calculus I

Fall 2009

MWF 2:30-3:20 HSS 57
T 2:30-3:20 HSS 57

Contact Information	
Instructor:	George Butler
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Course Web Page:	http://www.math.utk.edu/~gbutler/m141/fall_2009/
Office Hours:	TBA

Point Distribution	
Class Participation	150
Homework (10 at 15 pts. each)	150
In-Class Exams (4 at 100 pts. each)	400
Comprehensive Final	300
Total	1000

Grading Scale	
A	900-1000
A-	870- 899
B+	830- 869
B	800- 829
B-	770- 799
C+	730- 769
C	700- 729
C-	670- 699
D+	630- 669
D	600- 629
D-	570- 599
F	0- 569

Course Materials: The required text for 141 is Calculus: Concepts and Contexts 3 by James Stewart, ISBN 9-780534-410032. You may also purchase the student solution manual (ISBN 9-780534-379230), which provides detailed solutions to odd-numbered exercises. A graphing calculator such as the TI-83+ or TI-84+ is recommended but not required. Calculators should be used to complete arithmetic computations and check your work, but you will always be required to work all problems by hand and show all your work. Use of calculators with symbolic algebraic capability such as the TI-89 or TI-92 is considered cheating (see below).

Method of Teaching: Class time will be divided evenly between lecture and group problem solving. During the lecture portion I will be presenting the theoretical justification for the methods of differential calculus and demonstrating solutions to problems using these methods. The remainder of class time will require more active involvement on your part: I will write problems on the board, and ask one of you to tell me how to proceed at each step of the problem. If you need additional help, you may see me during office hours, or you may go to the Math Tutorial Center on the first floor of Temple Court (hours TBA).

Homework: Even-numbered homework problems will be assigned at the end of each day's lecture as they become accessible. Homework will be collected about once a week; you should hand in all problems assigned before the due date and after the last homework was collected. You may collaborate freely with each other on homework, and you may also ask me to work homework problems on the board during my office hours or at the beginning of each class. However, it is your responsibility to ensure that you understand the solutions to all exercises you hand in. For each homework assignment, I will select between five and twenty problems to grade in detail (depending on the length of the assignment and the complexity of the individual problems); your performance on these problems will determine the first ten points of that homework grade. The remaining five points will be a completeness grade calculated from how many of the ungraded problems you attempt. Any points beyond the 150 required for the homework portion of the grade will be applied to your semester point total as extra credit.

Exams: Each exam will consist of five to ten problems. The first four exams will primarily cover material presented since the last exam, but you should expect to see problems that combine the new material with

methods presented earlier in the course. There will be no new material on the final. Most exam problems will be similar to the homework, but each exam will have one or two harder problems designed to test your understanding of why the standard techniques are correct. In order to ensure that these harder problems are accessible, you should make sure you understand the justifications provided in class and in the text for each of the rules you learn.

Class Participation: You may earn participation points in three ways:

- Answering questions I pose to the class during a lecture: In order to ensure that everyone has an opportunity to earn points this way, I may in some instances call on a specific student after asking you to raise your hands. At other times I will ask the entire class a question and give credit to the first to answer.
- Pointing out and correcting any mistakes I make on the board: If you think you may have noticed a mistake, you should immediately interrupt whatever I am saying and point it out.
- Working problems on the board during office hours: You may work any problem not assigned as homework from a section covered no more than a week prior to seeing me in my office. You may not refer to any notes or previously completed solutions when working problems on the board.

Each time you participate, you will receive five points, up to a maximum of 15 each week. Any participation points beyond the 150 required will count as extra credit.

Attendance Policy: Attendance is highly recommended. Everyone is allowed one free makeup exam, excluding the final. Any additional makeups will require documentation such as an accident report, doctor’s note, obituary notice, or a signed letter on departmental letterhead for any university-sponsored field trips. I will try to schedule my office hours at times that are convenient for everyone; please try to arrange for makeup exams during my office hours.

Cheating: Using solution manuals for assigned homework problems (which would require you to acquire the instructor’s solution manual not available in the bookstore) or copying homework answers from the web is prohibited, and will result in a homework grade of zero for the entire term. Using your book, notes, or any other external assistance during an exam will result in an exam grade of zero for the first offense and a course grade of 'F' for any subsequent offense.

Course Outline			
Monday	Tuesday	Wednesday	Friday
		8/19: 1.7	8/21: 2.1
8/24: 2.2	8/25: 2.2	8/26: Appendix D	8/28: 2.3
8/31: 2.3	9/ 1: 2.4	9/ 2: 2.4	9/ 4: 2.5
9/ 7: Labor Day	9/ 8: 2.5	9/ 9: Review	9/11: Exam I
9/14: Exam I Disc.	9/15: 2.6	9/16: 2.6	9/18: 2.7
9/21: 2.8	9/22: 2.8	9/23: 2.9	9/25: 3.1
9/28: 3.1	9/29: 3.2	9/30: 3.3	10/ 2: 3.4
10/ 5: Review	10/ 6: Exam II	10/ 7: Exam II Disc.	10/ 9: 3.5
10/12: 3.5	10/13: Appendix H.1	10/14: Appendix H.1	10/16: Fall Break
10/19: 3.6	10/20: 3.6	10/21: 3.7	10/23: 3.8
10/26: 4.1	10/27: 4.1	10/28: 4.2	10/30: 4.2
11/ 2: Review	11/ 3: Exam III	11/ 4: Exam III Disc.	11/ 6: 4.8
11/ 9: 4.3	11/10: 4.3-4.4	11/11: 4.5	11/13: 4.5
11/16: 4.6	11/17: 4.6	11/18: 4.6	11/20: 4.6
11/23: Review	11/24: Exam IV	11/25: Exam IV Disc.	11/27: Thanksgiving
11/30: Review	12/ 1: Review	12/ 2: Study Period	12/ 4:
12/ 7:	12/ 8: Final Exam 2:45-4:45		