

Math 1271 Calculus I, Lectures 040 and 050, Spring 2012

INSTRUCTOR: Adrian Diaconu

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OFFICE HOURS: MF 2:25 pm - 3:25 pm, Vincent Hall 357

TEXT: James Stewart, CALCULUS Early Transcendentals, 7th Edition, volume 1

LECTURES:

040 MWF 1:25 pm – 2:15 pm, Anderson Hall 370

050 MWF 3:35 pm – 4:25 pm, Fraser Hall 102

RECITATIONS:

Section 041 T Th 1:25 pm - 2:15 pm, AkerH 215

Section 042 T Th 1:25 pm - 2:15 pm, LindH 229

Section 043 T Th 1:25 pm - 2:15 pm, VinH 211

Section 044 T Th 2:30 pm - 3:20 pm, ApH 319

Section 045 T Th 2:30 pm - 3:20 pm, FordH 110

Section 051 T Th 3:35 pm - 4:25 pm, ApH 319

Section 052 T Th 3:35 pm - 4:25 pm, FraserH 101

Section 053 T Th 4:40 pm - 5:30 pm, VinH 206

Section 054 T Th 4:40 pm - 5:30 pm, VinH 113

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PREREQUISITES: 4 years of high school math, including trigonometry, or C- in Math 1151 or 1155, or placement exam.

Caution: Students without an adequate background in trigonometry should NOT take Math 1271. A deficiency with trigonometry will not show up early in the course, however, by the time difficulties become overwhelming it will be too late to switch to Math 1151. Also, students with some calculus background (e.g., from high school) might, on the basis of easily grasping the early part of the course, create a defective study routine that will not suffice later in the course.

QUIZZES: There will be a short quiz every Tuesday, except for the first and last week of the semester, given in the recitation sections; the 3 lowest quiz scores will be dropped. Each quiz will cover the material discussed in class during the preceding week.

GRADING POLICY: Grades will be based on quizzes, three midterm exams, and a comprehensive final exam, contributing as follows:

	10 quizzes	3 midterms	final exam	Total
total points	120 points (12 pts.each)	330 points (110 pts. each)	300 points	750
percentage of grade	16%	44% (~15% each)	40%	100%

The final exam is a common exam for all sections of Math 1271; it will be given on Monday, MAY 7, from 1:30 pm to 4:30 pm. You will NOT be allowed to take the final exam at any other time. Your grade for the class will depend on how your score in the final exam compares with the scores of the students from ALL sections. However, if your cumulative score is at least 675 points (that is, 90%) you are guaranteed an A, if your score is at least 560 (~75%) you are guaranteed a B-, and if your score is at least 450 (60%) you are guaranteed a C- for the class. The final exam will have two parts, one consisting of "multiple choice" questions, and another consisting of problems that require a complete written solution. The midterms, however, will consist of only problems for which you have to write down a complete solution.

SCHEDULE OF MIDTERM EXAMS: The midterm exams will be given in your recitation sections, according to the following schedule (subject to change):

Exam 1 Thursday, February 16

Exam 2 Thursday, March 22

Exam 3 Thursday, April 19

HOMEWORK: Homework will be assigned daily, but it will be neither collected, nor graded. The quizzes and midterm exams will consist of problems similar to the ones assigned as homework. If you don't do your homework on a regular basis you should expect to do poorly in the course.

Tentative lecture schedule. (Not everything in the listed sections will be covered.)

Jan 18 and Jan 20: §§2.1, 2.2

Jan 23 to Jan 27: §§2.3, 2.4, 2.5

Jan 30 to Feb 3: §§2.6, 2.7, 2.8

Feb 6 to Feb 10: §§3.1, 3.2, 3.3

Feb 13 to Feb 17: Short review on Wed, §§3.4, 3.5

Feb 20 to Feb 24: §§3.6, 3.9, 3.10

Feb 27 to Mar 2: §§4.1, 4.2, 4.3

Mar 5 to Mar 9: §§4.4, 4.5

SPRING BREAK

Mar 19 to Mar 23: Short review on Wed, §§4.7, 4.8

Mar 26 to Mar 30: §§4.9, 5.1, 5.2

Apr 2 to Apr 6: §§5.2, 5.3

Apr 9 to Apr 13: §5.4

Apr 16 to Apr 20: Short review on Wed, §§5.5, 6.1,

Apr 23 to Apr 27: §§6.2, 6.3

Apr 30 to May 4: §6.5 and COURSE REVIEW

MISSED EXAMS POLICY: Missing an exam is permitted only for very serious and unavoidable extenuating circumstances, and only if you notify your instructor (not the TA) in advance. In all cases of absence from exams a written excuse is required. Otherwise you will get a score of 0 on the exam. Even if you are excused from taking a midterm exam, you will not be given a make-up. Instead, the following procedure will apply: at the end of the semester, two grades will be computed for a student who missed a midterm, and the highest of the two grades will be the one awarded for the class; the first grade will be determined by giving appropriate extra weights to the other two midterm exams, while the second grade will be determined by giving extra weight to the final exam. Except in truly exceptional situations, a student who misses the final exam will fail the course. There will be no make ups for missed quizzes.

INCOMPLETES: These will be given only in extraordinary circumstances, and are at my latitude. More precisely, I will consider giving you an incomplete if you have successfully completed all but a small portion of the work of the course and some severe, unexpected event prevents you from completing the course. This means that you must have taken at least 2 midterms and must be doing work at the C level or better. You will have to sign a contract detailing what you have to do to complete the course. I will not give you an incomplete simply because you are behind in your work; in the latter case you should try to drop the course.

S/N GRADE: If you are registered S/N, I will submit a grade of S if your letter grade is C or above, and otherwise a grade of N.

CALCULATORS: During midterms and quizzes you will be allowed to use "scientific" calculators, but NOT graphing calculators. A scientific calculator is one that can calculate the values of standard functions, but cannot display the graphs of functions, or perform symbolic manipulations.

No calculators, computers, or cell phones will be allowed during the **final exam**. There will be no calculations during this exam that one cannot handle without a calculator.

ATTENDANCE: Attendance will not be taken into account towards the final grade for this class, however it is very highly recommended. You are responsible for all material covered in class and all assignments. Experience shows that poor attendance most often results in a poor grade.

Below are the official University grading standards:

A -- achievement that is outstanding relative to the level necessary to meet course requirements.

B -- achievement that is significantly above the level necessary to meet course requirements.

C -- achievement that meets the course requirements in every respect.

D -- achievement that is worthy of credit even though it fails to meet fully the course requirements.

S -- achievement that is satisfactory, which is equivalent to a C- or better (achievement required for an S is at the discretion of the instructor but may be no lower than a C-).

F (or N) -- Represents failure (or no credit) and signifies that the work was either (1) completed but at a level of achievement that is not worthy of credit or (2) was not completed and there was no agreement between the instructor and the student that the student would be awarded an I (see also I)

Academic dishonesty: academic dishonesty in any portion of the academic work for a course shall be grounds for awarding a grade of F or N for the entire course.

I -- (Incomplete) Assigned at the discretion of the instructor when, due to extraordinary circumstances, e.g., hospitalization, a student is prevented from completing the work of the course on time. Requires a written agreement between instructor and student.

Here is the official policy of the College of Science and Engineering concerning scholastic conduct (see: http://it.umn.edu/students/policies/acad_integrity.html).

CSE expects the highest standards of honesty and integrity in the academic performance of its students. Any act of scholastic dishonesty is regarded as a serious offense that will result in a sanction being imposed, and may result in expulsion. Scholastic dishonesty is defined as: submission of false records of academic achievement; cheating on assignments or examinations; plagiarizing; altering, forging, or misusing a University academic record; taking, acquiring, or using test materials without faculty permission; and acting alone or in cooperation with another to falsify records or to obtain dishonest grades, honors, awards, or professional endorsement. Aiding and abetting a student in an act of scholastic dishonesty is also considered a serious offense.

LIBERAL EDUCATION: This course fulfills the Mathematical Thinking component of the Liberal Education requirements at the University of Minnesota. An important part of any liberal education is learning to use abstract thinking and symbolic language to solve practical problems. Calculus is one of the pillars of modern mathematical thought, and has diverse applications essential to our complex world. In this course, students will be exposed to theoretical concepts at the heart of calculus and to numerous examples of real-world applications.

Assigned homework problems:

Section	Page	Problems
2.2	96	4, 5, 6, 7, 8, 9, 29, 31, 37.
2.3	106	odd 11-31, 37, 41.
2.4	116	1, 2, 3
2.5	127	3, 4, 5-8, 23, 41, 47a,b, 51, 52, 69.
2.6	140	3, odd 15-31, 65a.
2.7	150	3a,b, 7, 11, 29, 33, 38.
2.8	162	3, 15, 21, 23, 27, 43.
3.1	181	odd 3-27, 34, 51, 55, 63.
3.2	189	odd 1-25, 47, 51.
3.3	197	odd 1-23, odd 39-45.
3.4	205	odd 7-37, 51, 59, 71.
3.5	215	odd 1-27, 31, 35, 45 odd 49-54.
3.6	223	odd 3-23, odd 39-49, 52.
3.9	248	odd 1-7, 13, 15, 16, 18.
3.10	255	odd 23-31.
4.1	280	3, 5, odd 47-55, 57.
4.2	288	1, 3, 5, 9, 15, 17, 19, 21a, 33.
4.3	297	odd 11-19, odd 31-41, 77.
4.4	307	odd 7-25, odd 29-61.
4.5	317	odd 1-17, 37, 51.
4.7	331	3, 7, 14, 19, 34, 35, 38.
4.8	342	3, do not graph: 7, 9.
4.9	348	odd 1-39, 55.
5.1	369	1, 3, 13, 17, 19, 22.
5.2	382	1, Riemann sum only 11, 17, 19, 29, 34, 35, 37, 39, 47, 49.
5.3	394	odd 5-39, 45, 53, 56, 57, 64, 69.
5.4	403	odd 1-11, odd 21-39, 51.
5.5	413	odd 1-33, 53-59, 77, 85.
6.1	427	odd 3-23, 44.
6.2	438	odd 1-17, do not evaluate 33a, 39, 43, harder: 50, 63.
6.3	444	odd 3-15, 21a, 23a, 29, 30, 37.
6.5	453	odd 1-7, 13, 17.