

Mathematics 108, Calculus II for Business
Fall Semester 1998
General Information For Section 01

Text: “Math 108 Lecture Notes, Fall 1998”, by Alex Himonas and Alan Howard

*In addition, you may want to have access to a standard Calculus text.

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Office Hours - Mon. 2-3, Tues. 10-11, Wed. 2-3, and by appointment/drop in

Time and Place: MWF 8:30-9:20 in DBRT 131

Objectives: The main objective of Math 108 is to learn mathematical concepts, techniques, and ideas that are useful in solving and understanding real life problems which arise in economics and business. Therefore most mathematical concepts are introduced through interesting business problems. Furthermore by using available computer technology, real life problems which may lead to non-trivial computations and graphics are considered. Familiarization of the students with current computer technology is another objective of Math 108.

Electronic Course Information: All relevant information for this course i.e. exam dates, homework assignments, homework answers, computer assignments, ... may be found on my webpage. In addition, I will provide weekly course updates, including homework assignments, via email. Please see me if you have not received an email message from me.

Methods of Evaluation:

- 100 points - Exam 1: Friday, September 18, 8:30-9:20 AM in DBRT 131
 - 100 points - Exam 2: Wednesday, October 14, 8:30-9:20 AM in DBRT 131
 - 100 points - Exam 3: Wednesday, November 18, 8:30-9:20 AM in DBRT 131
 - 200 points - Final Exam: Wednesday, December 16, 1:45-3:45 PM in TBA
 - 50 points - weekly homework assignments, 4 computer assignments, occasional pop quizzes*
- TOTAL = 550 possible points

*Each of these will be worth 5 points. Your **ten** best scores will be kept for a total of 50 points, subject to the condition that at least **two** of the scores kept will be from computer assignments.

Grade Assignment: Your course grade will be based on your final point total for the course, out of a maximum of 550 points. A precise “curve” will not be determined until the **end** of the course, but you may assume the following:

If your point total is **at least**, then your grade will be **at least**

495 (90%)	A–
440 (80%)	B–
385 (70%)	C–
330 (60%)	D

Homework: Homework problems from the text will be assigned each week and collected on the following **Wednesday**. You are encouraged to work on homework problems in groups, but the assignments must be turned in individually. And remember that you will not learn anything by simply copying another student’s work.

Computer Homework: In addition to “regular” homework problems, there will be **four** computer assignments using the program Mathematica due on the following dates:

- Computer Homework 1 Due on Wednesday, September 16
- Computer Homework 2 Due on Wednesday, October 7
- Computer Homework 3 Due on Wednesday, November 11
- Computer Homework 4 Due on Wednesday, November 25

More precise information and a demonstration of these assignments will be given in class. These may be

done (and turned in) as a group of 2 or 3 if you wish. However, if done in a group, you are under the Honor Code that you actually participated.

Exam and Homework collection policies: An unexcused absence from an exam will result in a score of zero for that exam. If you have a valid excuse for missing an exam, you will be given a make-up exam. Please see me asap if you foresee any potential conflicts and make note of the exam dates when making travel plans (this is **not** a valid excuse).

Homework assignments are due on the scheduled date either in class or in my office/mail box in the math building by **noon** of that day. Because of the dropping of scores, absolutely **no** late homework will be accepted, except in the case of extended illness.

Classroom Policies: On a typical class day, I will spend the beginning of class answering questions, with the remainder of the class being the day's "lecture". If you have numerous questions on some topic, you should come to see me before the next class as there will likely not be sufficient time to answer all of your questions. During "lectures" you are encouraged to actively participate by answering and asking questions. Indeed, from time to time there will be "activities" to get you more involved. I hope you will find the classes interesting and worthwhile.

Some technical points: Obviously this is an early class, so please do your best to show up on time (our time together is very limited as it is) and quietly enter the room when this is not possible. Further, there will be days when discussing the upcoming football game will seem more interesting than Calculus. Please remember to respect your colleagues who are here to learn and save the pregame analysis until after class. Indeed, class disruptions will **NOT** be tolerated and the offending parties will be asked to leave.

Study Suggestions: After each lecture, it is often useful to go back over it. Ask yourself what is the main problem of the day and then its solution. Rewrite your notes in your own words if that helps. Read the corresponding section(s) of the Lecture Notes and see if the examples there make sense. **Then** begin the homework problems. If you have questions, try to ask a colleague or me before the next class. Remember, Math is often a team sport - make use of your teammates!

Extra Help: There will be an undergraduate student available for computer help (and possibly help with regular homework problems) two nights a week (TBA in class) in the DeBartolo computer lab for Math 108 students.

For those of you who are first year students, First Year Studies offers several methods of help through the **First Year Learning Resource Center**, including study groups and small group tutoring. See me or your advisor for more information.

Honor Code: All exams are taken under the honor code. The honor code does not apply to homework. So you may discuss the homework with other classmates but **do NOT copy** each other. Once again, collaboration in small groups is strongly encouraged in this course.

Calculators: Calculators may be used on all homework assignments and exams.

Week 1 Schedule of Events

Wednesday - Introduction, Review of Derivatives, The Indefinite Integral - Section 1.1

Friday - The Initial Value Problem and the Substitution Method - Sections 1.2, 1.3

Homework 1 Due Wednesday, September 2:

A. Exercises 1.1: 1, 2*, 3a,b,c,e,g, 4a,c,d

B. Exercises 1.2: 1a,c,e,f, 2, 4, 5

C. Exercises 1.3: 1, 3, 4, 5, 7

* In parts b and c of Exercise 1.1 number 2, assume that the 8 hour shift runs from time $t = 0$ to $t = 8$.