Math 112 Information

Instructor: Harold B. Reiter
Office: 275 Watson
Office Hours: MWF 10:30 to 11:30; 11:30 to noon by appointment
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Grading
There will be three tests, each contributing about one sixth of the final grade. Homework sets together will count one sixth of the grade. Problem sets will be collected. Homework from the text will also be collected. You may work with other students on these homeworks. **If you do not do these problem sets on your own, you must identify** your partners. Please **fold** your papers over from **left to right** and write your name on the front page at the top and **staple** the pages together in the top left corner so that they do not separate while being scored. Save your graded problem sets in case the online grade numbers are not correct.
The tests are **cumulative**. That is, each test will include some questions on material covered in previous tests. The final exam, also cumulative, will account for *at least* one third of the final grade. The policy is that the final exam may count for a larger percentage of the grade if it is helpful to the student. Grades will be determined as follows: A, 85%; B, 70% to 85%; C, 55% to 70%; D, 40% to 55%. Cell phones must be turned off during class time.

Homework
Homework will be collected regularly, and may be done either individually or in a group. **Group work is encouraged.** Remember the requirement to **list your homework partners** each time you work with others. Homework assignments are called Sets, and there is roughly one per week. These sets are graded and together make up roughly one sixth of your grade in the course.

Making progress in the course.
The great news is that this course has an assistant teacher, senior math major Will Jones. Will has agreed to be available for 2.5 hours each Tuesday and Thursday and to conduct problem sessions before each test. He’ll use my office Watson 275 most days. Times, tba.
You are expected to make academic progress of two types in this course. First, you are expected to develop certain **skills**: factoring, solving equations, expanding and simplifying expressions, and differentiating and anti-differentiating functions. You are also expected to develop an **understanding of the concepts** and ideas of algebra and calculus, and to gain the confidence and mathematical maturity to use these concepts in **new settings**. Another way to put this is that I expect you to develop a tolerance for confusion. You can not expect to pass the course without making progress here. It is also quite possible that some test problems will seem new to some students. Tests in the course are **cumulative**. That is to say, each test covers all the material encountered since the course began. The reason for this is that each topic after the first test is
built on material discussed earlier. The website https://math2.uncc.edu/~hbreiter/m1120/index.html is available for your use.

Getting help in the course
Math & Science Center
The Math & Science Center (MSC) offers free assistance to students in all areas of math and science, with a focus on the introductory courses. Trained and highly qualified peers hold one-on-one and small-group tutoring sessions on a drop-in basis or by appointment, as well as timely recap sessions ahead of scheduled reviews.

Emphasis is placed on thinking critically, understanding concepts, making connections, and communicating effectively, not just getting correct answers. In addition, students can start or join a study group and use the MSC as a group or individual study space. Located in the Center for Teaching & Learning (CTL) on the first floor of the College Library, drop-in hours are Sunday through Thursday, 8-11 PM, and Sunday, Tuesday, Thursday, 4-6 PM, beginning Sunday, August 26. Appointments are available at other times. For more information, visit http://www.davidson.edu/offices/ctl/students/math-science-and-economics-center, or contact Dr. Mark Barsoum (mabarsoum or ext. 2796).

Goals for the course
A. To win you over to the intellectual enterprise. That is, I hope to help you develop the confidence and maturity to take the intellectual approach to solving problems you encounter. In other words, you can solve many problems by puzzling, and you can change your environment for the better if you embrace this method.

B. To help you develop the algebraic, calculator, and calculus skills and understanding of the real numbers in order to see the concepts of calculus in settings other than those studied in the course.

C. To help you see mathematical problem solving as an enjoyable and worthwhile activity. To help you build a 'tolerance for confusion'.

Learning Outcomes
1. Make sense of zero over zero.
2. Apply discrete and continuous models to describe quantities related to economics and the life sciences.
3. Use the definition of derivative to find derivatives of rational functions and simple compositions.
4. Find critical points and build the sign chart for functions and their derivatives.
5. Use derivatives to solve optimizations problems.
6. Evaluate simple integrals using the fundamental theorem of calculus and/or numerical approximation.
**Disability Accommodation**: The college welcomes requests for accommodations related to disability and will grant those that are determined to be reasonable and maintain the integrity of a program or curriculum. To make such a request or to begin a conversation about a possible request, please contact the Office of Academic Access and Disability Resources, which is located in the Center for Teaching and Learning in the E.H. Little Library: Beth Bleil, Director, bebleil@davidson.edu, 704-894-2129; or Alysen Beaty, Assistant Director, lbeaty@davidson.edu, 704-894-2939. It is best to submit accommodation requests within the drop/add period; however, requests can be made at any time in the semester. Please keep in mind that accommodations are not retroactive.

**The Honor Code** restricts “unauthorized information” and on Reviews (tests) any help or source, other than your brain or calculator, is unauthorized. However, on Daily Homework help is allowed. These daily homework assignments are a learning opportunity where you can work with or get help from any person or reference. However, you may NOT just copy from a previously completed paper or specific solution manual. Do check all odd-numbered problem answers in the back of the book. In general, I encourage students to consult with others or work together. Don’t struggle alone! Remember the Math & Science Center and my office hours.