

Math 231 W3 / Math 199
Calculus II Merit Workshop
Spring 2008

Instructor: Mike Barrus

Office hours: (held in 173 Altgeld Hall) Tuesdays and Thursdays, 4-5 PM, and by appointment.

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Course webpage: <http://www.math.uiuc.edu/~mbarrus2/teaching.html>

Text: Smith and Minton, *Calculus: Early Transcendental Functions*, 3rd edition, McGraw Hill. We will cover most of the material in Chapter 6, Section 7.1, and Chapters 8 and 9.

Grades for the course

You should be registered for both Math 231 (Calc II) and Math 199 (merit workshop). You will receive a grade for each class. Here are the grading criteria:

Math 231

Credit will be earned in the following categories (shown with their percentages of the final point total):

Midterm exams (3 total)	45 %
Quizzes (10 total)	15 %
Project	10 %
Final exam	30 %

Here is a summary of each component:

Quizzes: Quizzes will be given every Friday, except on the day of an exam or exam review. Quizzes consist of from 1 to 3 questions and will be given during the first 10 to 15 minutes of class. There will be eleven quizzes total; the lowest score will be dropped in calculating your grade. For this reason, quizzes may not be made up, so please plan to not miss any (including the one before Spring Break!).

Midterms: There will be three midterms, as shown below:

Exam	Date	Material covered
1	Monday, Feb. 11	Chapter 6 and Section 7.1
2	Monday, March 10	Sections 8.1–8.5
3	Friday, April 18	Sections 8.6–8.8, 9.1–9.3

Each exam will be worth 15% of the final grade. Missed exams may be made up only with a note from the emergency dean, in the event of...well, an emergency. If you have a conflict

with an exam date, let me know well in advance—as soon as you know about it.

Project: You are required to complete an individual project from the set of about 10 that will be offered during the semester. Projects will consist of a written portion and a brief one-on-one discussion (approximately 15 minutes) with the instructor. Projects will be due on Monday, April 21, though they can (and should!) be completed and turned in at any time before then. More details will be given early in the semester.

Final exam: The final exam will be comprehensive. Our final exam is scheduled for **Saturday, May 3, 2008, from 8 to 11 AM** in our classroom.

Math 199

Each student may earn up to 10 points for their performance in each merit session. These points are assigned on the basis of attendance (3 points), preparation (3 points), and participation (4 points).

Attendance. Attendance is required and will be recorded according to the following policy:

- 0 to 5 minutes late: 0 to 3 points assigned for attendance.
- 5:01 to 15 minutes late: 0 points for attendance (and therefore 7 points maximum possible for that session).
- 15:01 to 30 minutes late: 0 points for attendance and 2 points maximum possible for participation (hence 5 points maximum possible for the day).
- Unexcused absence or more than 30 minutes late: 0 points for that session.

We will meet 43 times throughout the semester, so each day's points count for about 2.3% of the total. (Not much in and of itself, but it adds up!) While illnesses may be excused with a doctor's note, and other circumstances may warrant some leniency, you should keep in mind that absences and even tardiness **will** hurt your grade. Please plan to be in class!

Preparation. A projected course schedule will be maintained on the course website and announced in class. Most days throughout the semester you will be given a reading assignment from the text, which will include a simple exercise from the book. You are expected to have completed the reading assignment and worked the exercise before class. You will turn in the exercise (showing all your work) at the beginning of class on the day it is due. Your 3 preparation points will be awarded on (1) your turning in the problem and (2) its completeness and correctness.

It will also be important to have a book to consult during the class period. In order to avoid losing preparation points, please make sure each day that at least one person in your group has a textbook with them.

Participation. A large part of how the Merit program will benefit you comes from how

you interact with the class. You are expected to contribute your ideas and insights as well as your questions. Please use this opportunity to its greatest advantage.

Participation points will be based mainly on your getting up to the blackboard or whiteboard. I will pass out a sign-off sheet to each group at the beginning of class most days, and once you've gotten to a board to show some steps on a problem, or just to be a scribe for your group (which is perfectly okay), someone else from your group will sign the sheet, verifying your participation. It's an easy way to earn your 4 points each day, but it is your responsibility to make sure you get to the board.

The grading scale

The following percentages will ensure you at least the corresponding letter grades in Math 199:

93 or above:	A	83-86:	B	73-76:	C	63-67:	D
90-92:	A-	80-82:	B-	70-72:	C-	60-62:	D-
87-89:	B+	77-79:	C+	67-69:	D+	59 or below:	E

These percentages will also guarantee you at least these grades in Math 231. Please be aware, however, that while Math 231 grades may be curved up at the instructor's discretion, *Math 199 grades will not be curved.*

McGraw-Hill's MathZone

The publishers of our textbook have developed a collection of online study aids known as MathZone (www.mathzone.com). The website contains animated demonstrations of concepts and extra practice problems that give you immediate feedback on whether or not you're working the section's problems correctly. Note that no part of either your Math 231 grade nor your Math 199 grade is based on homework (except for the Math 199 preparation assignments). That doesn't mean that you shouldn't be doing problems—LOTS of problems—as you learn the material. You should; there's no way to learn the material without practicing, and you'll probably find that the work you do during class is not enough to master the material.

For that reason, while it is not required that you do so, I ***STRONGLY, HEARTILY, and EAGERLY*** encourage you to sign up for an account at MathZone. If you've just bought your textbook new, it may have already come with a MathZone code. If not, MathZone codes may be ordered at bookstores or purchased online at MathZone's website. Create an account (see the attached page for instructions), and use MathZone to help you prepare for each day's class, quizzes, midterms, etc.

A few words on calculators

Calculators will not be necessary for this class. Their use is perfectly fine in your personal study—in fact, you may find that a graphing calculator or mathematical computer software package (such as Maple, Mathematica, or Matlab) can be extremely helpful in helping you

to visualize and understand topics we cover. However, the use of any sort of calculator will not be allowed on any quiz, midterm, or the final; this is so that I can properly assess the skills that you yourself have.

The obligatory statement on academic integrity and other issues

Complete honesty with yourself and with me is vital in successfully learning a challenging subject like calculus. Because of this, cheating will not be tolerated. A student found cheating on an assignment, quiz, project, or exam is subject to receiving a score of 0 on that item and possibly other penalties as outlined in the University Student Code.

In general, students are required to conduct themselves in compliance with all policies in the University's Student Code, which can be found online at

<http://www.admin.uiuc.edu/policy/code/index.html>.

If any problems arise, I will follow the procedures described there.

And finally, a few words on the Merit philosophy

Merit discussions provide a great opportunity for you to attain a high level of understanding of the course material and to learn to think critically about math in general. This class will differ from many you've had before in that *it will not involve any lecture*. It is up to you to make sure you learn the material. The time you spend in class will be a great help to you, but it is not intended to take the place of time you should be studying **outside** of class.

During class time you will learn new ways to tackle problems, feel more comfortable about sharing your ideas, make new friends, and realize what you do and don't understand in a comfortable, supportive environment. You are encouraged to share your opinions in class, but please be aware and respectful that others may have different opinions. You don't have to agree, but must learn to attack ideas, not people. The biggest benefit of Merit will be gained by students who come to class already familiar with the material and prepared to discuss it, hear new ideas from peers, and apply their understanding to novel situations. But the format is not a traditional one with an instructor giving information that you are to learn and reproduce. I will be a "non-traditional" instructor for much of the time. I most often will **not** answer questions directly, but will ask you to consider them further in your groups or to find the information on your own. We will all need to think in new ways about our roles in this class. While there is the possibility for frustration inherent in this, I'm confident that we can work together to make this a remarkably valuable experience.

I'm looking forward to working with you this semester. Second-semester calculus is filled with fascinating ideas, and with some work, it'll make sense. If you have any concerns at all, please talk to me or e-mail me as soon as possible. Have a great semester!