

SYLLABUS

Math 185 – Section 4 – Fall 2009

- Instructor: Karl Schwede
- Class web page: <http://www-personal.umich.edu/~kschwede/math185>
- Text: *Calculus* by Michael Spivak
- Suggested Text: *Calculus and Linear Algebra* by Wilfred Kaplan and Donald Lewis
- Contacting the instructor:
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 - Office Hours: TBD
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Course Content: Our goal is to understand why and how calculus works and so there will be an emphasis on mathematically rigorous explanations (ie. *proofs*). From the book “Calculus”, we will cover most of Part II and a fair amount of Part III. We may also cover bits of Part V.

Honors course: This is an honors class. This means that you will be expected to do harder problems and master more difficult concepts than is expected in Math 115. The type of math we’ll be covering in this class is likely very different from anything you have seen previously, and thus it might take some time to get used to the type of problems you will be expected to do.

Homework, Quizzes, Exams, etc: We will have weekly homework of various forms and two midterms, there may be occasional quizzes as well. The dates of the midterms are yet to be determined. Tentatively, they are Friday October 16th, and Monday November 23rd. There will be no calculators allowed on exams, so please learn how to do problems without using a calculator. Homework problems will emphasize correct reasoning/explanation. I would also ask that you *read* the section of the book to be covered that day in class, *before* class. I strongly encourage you to work with each other on homework problems, but each person needs to turn in their own write-up.

Your grade:

- 20% Homework (and other activities)
- 25% Midterm #1 (tentatively, Friday October 16th)
- 25% Midterm #2 (tentatively, Monday November 23rd)
- 30% Final

The actual assigning of letter-grades to percentiles will be done later in the quarter.

Weekly problem sessions and extra math: We’ll try to find a time that works best for people today. More about this will be announced soon.

First homework (Due Tuesday September 15th): In general homework will be posted on the website. The first homework assignment is listed below.

- From Spivak Chapter 3. Do # 2, 3, 8, 9, 12, 13, 17, 21
- (Extra Problem) Write down a bijective function with domain \mathbb{Z} and codomain \mathbb{N} .