

Math 203 Contemporary Mathematics
Section 008

Lecture: MWF 12:30-1:20, in Oldfather Hall (OldH) 308

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WWW pages for this class: <http://www.math.unl.edu/~mbrittenham2/classwk/203f07/>
(There you will find every handout from class, dates for quizzes, review materials, etc.)

Office Hours: (tentatively) Mo 2:00 - 3:00, We 1:30-2:30, and Th 1:00 - 2:00, and whenever you can find me in my office and I'm not horrendously busy. You are also quite welcome to make an appointment for any other time; this is easiest to arrange by email or just before or after class. Any alteration of these hours will be announced in class.

Text: *A Mathematical View of the World*, by Parks, Musser, Trimpe, Maurer, and Maurer (2007).

This course, as the name is meant to imply, is intended to give us a chance to look at some of the problems, methods, and results of contemporary mathematical thinking. Our goal is not so much to learn specific mathematical skills, as it is in most other mathematics courses; our interest is more to see how mathematics fits into the modern world, to develop problem solving skills, and to develop communications skills, especially in communicating mathematical ideas.

Our basic goal will be to work through the following chapters:

- Ch. 1, Numbers in Our Lives
- Ch. 2, Shapes in Our Lives
- Ch. 6, Routes and Networks
- Ch. 7, Scheduling
- Ch. 8, Descriptive Statistics - Data and Patterns
- Ch. 9, Collecting and Interpreting Data
- Ch. 10, Probability
- Ch. 11, Inferential Statistics
- Ch. 3, Voting and Elections
- Ch. 4, Fair Division
- Ch. 5, Apportionment

Quizzes will be given in class as we finish each chapter; each will be between 15 and 30 minutes long. In accordance with the university's dead week policy, a quiz for the last chapter we cover cannot be given during the last week of classes, and will therefore be given during the regularly-scheduled final exam time, Thursday, Dec. 20, from 3:30 to 5:30 p.m. Your quiz grades will constitute 60% of your final grade.

You can take a make-up quiz only if there are compelling reasons (a doctor SAYS you were sick, jury duty, etc.) for you to miss a quiz. Make-up quizzes tend to be harder than the originals (because make-up quizzes are harder to write!).

Homework will be assigned nearly every day. It is an essential ingredient to the course - as with almost all of mathematics (and a lot else), we learn best by doing. Cooperation with other students on these assignments is acceptable, and even encouraged. However, you should try working through problems first on your own - after all, you get to use only one brain on quizzes (and it can't be someone else's).

Between one and three problems will be collected at the beginning of the next class and graded. Together the homework assignments will constitute 10% of your final grade.

Writing assignments are an integral part of this class, since this course may be used to meet the Integrated Studies requirement. At regular intervals, three or four times during the semester, you will essentially carry out an analysis of a mathematical problem using the tools introduced in class, or explore a topic related to the ideas explored in class, or write about some other mathematically inclined topic, and write a report of your findings. These reports will be graded both on their mathematical content and their grammatical accuracy. Together they will constitute the remaining 30% of your grade.

Your course grade will be calculated numerically using the above components, and will be converted to a letter grade based partly on the overall average of the class. However, an overall score of 90% or better will guarantee some kind of **A**, 80% or better at least some sort of **B**, 70% or better at least a flavor of **C**, and 60% or better at least a **D**.

Calculators: You will need a small calculator, with a square root function, for portions of this course. You will be allowed to use a calculator during the quizzes. However, a cell phone calculator cannot be used on quizzes.

Cell phones should be silenced for the duration of all classes, and extreme restraint should be exercised in answering a call during class. If you feel that you must answer a call, please excuse yourself from the room before beginning to take the call.

In mathematics, new concepts continually rely upon the mastery of old ones; it is therefore essential that you thoroughly understand each new topic before moving on. Our classes are an important opportunity for you to ask questions; to make sure that you are understanding concepts correctly. Speak up! It's your education at stake. Make every effort to resist the temptation to put off work, and to fall behind. Every topic has to be gotten through, not around. And it's a lot easier to read 50 pages in a week than it is in a day. The best strategy is probably to try to do some work for the class every single day.

Some important academic dates

Aug. 27 : First day of classes.

Sept. 3 : Labor Day - no classes.

Sept. 7 : Last day to withdraw from a course without a 'W'.

Sept. 17,18,19,20 : Mid-Semester Check (7:00 to 8:30pm, Nebraska Union)

Oct. 19 : Last day to change to or from P/NP.

Oct. 22-23 : Fall break - no classes.

Nov. 16 : Last day to withdraw from a course.

Nov. 21 : Student holiday - no classes.

Nov. 22-25 : Thanksgiving Vacation - no classes.

Dec. 15 : Last day of classes.

Dec. 19 : Math 106 Final examination.

Departmental Grading Appeals Policy: The Department of Mathematics does not tolerate discrimination or harassment on the basis of race, gender, religion or sexual orientation. If you believe you have been subject to such discrimination or harassment, in this or any math course, please contact the Department. If, for this or any other reason, you believe your grade was assigned incorrectly or capriciously, appeals may be made (in order) to the instructor, the Department Chair, the Departmental Grading Appeals Committee, the College Grading Appeals Committee, and the University Grading Appeals Committee.