

Math 203: Contemporary Mathematics

Section 009, spring 2009

Course information sheet

Time and place: Tuesdays and Thursdays, 2:00–3:15 p.m., in Oldfather Hall 303

Textbook: *A Mathematical View of Our World*, by Parks, Musser, et al.

Web page: <http://www.math.unl.edu/~s-bkell1/203-2009s/>

Instructor: Brian Kell

Office: Avery Hall 344

Office phone: 402-472-7255

E-mail: s-bkell1@math.unl.edu

(that's s-, followed by bkell for Brian Kell, followed by the digit 1)

Mailbox: 88 (Avery Hall 203)

Office hours: Mondays and Wednesdays, 2:30–4:00 p.m., and by appointment.

If you want to meet at a different time, that's fine; please e-mail me to let me know. The most up-to-date version of my weekly schedule is available online at

<http://www.zifyoip.com/me/sched/2009/spring.html>

and is posted outside my office door; I am often in my office when I'm not doing something else.

Math department office: Avery Hall 203, 402-472-3731

Welcome to Math 203!

The goal of Math 203, Contemporary Mathematics, is to apply mathematical reasoning and methods to problems and decision making. It will also help you to improve your ability to communicate ideas, and hopefully will show you some of the ways in which mathematics is useful, interesting, and maybe even fun.

I welcome comments and feedback about this course at any time. Please feel free to send me an e-mail with your thoughts, or stick a note in my mailbox or under my office door. For totally anonymous comments, visit the course Web page; there is a link to a form you can fill out that will send your comments to me anonymously.

Academic integrity

The most important rule in this course is this: You are expected to be honest. This is a simple matter of respect toward me and the other students in the class. Cheating, plagiarism, and other forms of dishonesty in this course will not be tolerated. All work in this course must be completed in accordance with the Student Code of Conduct found in the 2008–2009 Undergraduate Bulletin, available online at <http://www.unl.edu/unlpub/undergrad/>.

Grading

You will be given points for your work in this course as shown in the following table.

	Number	Each	Total possible	Graded out of	Approx. percentage
Attendance/participation	30	10	300	270	21%
Quizzes	28	6	168	(bonus)	+13%
Chapter tests	10*	60	540	540	41%
Writing assignments	5	60	300	300	23%
Project	1	200	200	200	15%
Total				1310	

* Your lowest chapter test score will be dropped.

Your final grade for this course will be determined according to the following scale.

If you get at least this many points:	1258	1205	1153	1100	1048	996	943	891	838	786	734	681	0
Or at least this percentage:	96%	92%	88%	84%	80%	76%	72%	68%	64%	60%	56%	52%	0%
Then you are guaranteed at least this grade:	A+	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
Which is this on a 4.0 scale for your GPA:	4.00	4.00	3.67	3.33	3.00	2.67	2.33	2.00	1.67	1.33	1.00	0.67	0.00

If you take this course “Pass/No Pass,” you need to get a C or higher to receive a grade of “Pass”; a C- or lower is a “No Pass.”

Attendance and participation

Many math courses focus on technical mastery of a relatively fixed set of facts, techniques, and concepts, and often attendance and participation are not graded directly in these courses. However, Math 203 is somewhat different. It focuses primarily on the exploration and interpretation of mathematical ideas, and a view of the world from a mathematical perspective, rather than the memorization and manipulation of formulas. An important part of this course will be group discussion and activities in class. For this reason, attendance and participation form a large part of your grade.

The record of your attendance will be the quizzes we will take every day at the beginning of class. For the most part, you will get 10 attendance points for each quiz by just writing your name. (Participation counts too, though—I reserve the right to adjust this score if you are obviously not participating in class.) There are 30 days of class over the course of the semester, so you can get up to 300 points for attendance and participation. In order to allow for unexpected absences, I count this part of your grade as only 270 points—so you can miss up to three days of class and still get 100% of your attendance and participation points. (On the other hand, if you don’t miss any days of class and get 300 points, then you get to count those 30 extra points as bonus points.)

Just as it is important that you attend every class, it is also important that you arrive on time. Coming in late is disruptive and disrespectful to me and your fellow classmates. If you do arrive late, please enter the room and take your seat quietly. Likewise, if you must leave class early, please do so as quietly and considerately as you can.

While in class, please turn off your cell phone or set it to silent mode.

Class structure

At the end of class each day, I will give a reading assignment, to be read before the next class, and some homework problems to do. (Refer to the tentative schedule, which is attached, to get an idea of what the reading assignments will be.)

At the beginning of the next class, we will have a short quiz, which will cover the reading assignment and homework problems given at the end of the previous class. (See the next section for more details about these quizzes.) I will spend some time after the quiz answering questions about what you have read and showing you some examples. For the rest of the class, I might give a short lesson, or I might hand out a worksheet, or we might do an in-class activity.

As far as possible, I would like to avoid standing at the front of the classroom and just delivering a lecture (though I can do this if the class would prefer it). I think that the course will be more interesting and enjoyable if we can have meaningful and lively discussions. However, this requires you to take this course seriously and do the assigned reading and homework problems outside of class. If everyone does this, then when class starts everyone will have a basic idea of what’s going on, and we can spend more time exploring the details and tackling some of the more challenging ideas.

This general plan for a typical class will of course need to be changed occasionally—for example, on the days when we have chapter tests.

Quizzes

We will start each class with a short quiz, about 5 to 10 minutes long. Usually these quizzes will have two problems: the first problem will be a general, conceptual question about something from

the reading assignment given at the end of the previous class, and the second question will be one of the homework problems that were assigned.

These are open-book and open-note quizzes. Therefore it is very much to your advantage to do all of the assigned homework problems before class—if you have done it already, you can simply copy your solution rather than working the problem from scratch. (In fact, if you don't have the problem already done, you probably won't have enough time to work out the whole thing.)

As noted above in the section about attendance and participation, you will generally get 10 attendance points for simply writing your name on the quiz. Additionally, each of the two questions on the quiz is worth up to three points. You will get 3 points for a correct and well-explained answer, 2 points for an answer which is mostly correct, 1 point for writing something that makes at least a little bit of sense, or 0 points for leaving the question blank or writing nonsense. These 6 quiz points are bonus points, so you can get up to 168 bonus points over the course of the semester from these quizzes alone.

Since quiz points are purely bonus points, make-up quizzes will not be given.

Chapter tests

There will be 10 chapter tests, one for each chapter we cover. These tests will be given at the beginning of the class after we finish talking about the chapter, and will be about 25 minutes long. Since the chapter tests don't take up the whole class period, we will continue with a shortened class (including the daily quiz) after the test is finished.

Unlike the quizzes, no books or notes may be used on the chapter tests. You may use a calculator, but you may not use a cell phone or another device with wireless capabilities.

The 10 chapter tests are worth 60 points each. At the end of the semester, your lowest chapter test score will be dropped, so only your best 9 of the 10 chapter tests will count toward your final grade.

There is no final exam for this course. Use that time during finals week to study for your other exams.

Writing assignments

Math 203 is classified as an Integrative Studies (IS) course. This means that the course should emphasize, among other things, critical thinking, writing, the investigation of concepts and hypotheses open to question, and the exploration of underlying assumptions. Therefore, over the course of the semester, there will be 5 writing assignments, which will challenge you to think about different aspects of the concepts we will cover, to explore topics in greater depth, to solve problems using the ideas and techniques we will discuss, or to research some of the history and applications of mathematics.

For each writing assignment, I will give you a selection of several possible topics; you can choose the one which seems most interesting to you. Each writing assignment is worth 60 points. You will probably need about 500 to 800 words (two to three pages of double-spaced text, with wide margins) to discuss your topic in sufficient detail.

A significant portion of this grade will be based on your writing itself (spelling, grammar, punctuation and other mechanics of writing, sentence and paragraph structure, and so on). Writing assignments must be typed (except perhaps for figures). Write carefully and express yourself clearly, and proofread your work before you hand it in. Be sure to pay close attention to the quality expectations for submitted work described below.

For the purpose of satisfying the Fifteenth Week Policy, you are hereby notified that it is likely one of these writing assignments will be due the Tuesday of the Fifteenth Week (that is, Tuesday, April 28).

Project

Lastly, there will be one project in this course. You may work in a group of up to four people on the project. The project is worth 200 points. It will tie together several topics we will talk about in the course and will require creative thinking to complete. Like the writing assignments, a significant portion of your grade for the project will be based on your writing. The project will be assigned in

late February or early March, and will be due near the end of the semester. More information will be given about the project later.

Quality expectations for submitted work

Submitted work (including the writing assignments and the project) is expected to meet the following standards for quality. Work which does not meet these standards will not be accepted.

- **Be academically honest.** Never put your name on work that is not yours or work you do not understand, and always give credit where credit is due. Remember: Taking someone else's work or ideas and presenting them as your own is plagiarism, even if you change the wording. Provide a list of sources other than the textbook (if any) that you used to do the assignment, and state clearly that you are copying or mimicking an example from the book in order to do the assignment (if appropriate). If you worked with other students in the class to solve a problem, be sure to write your results *in your own words*, and include a list of your collaborators. Do not ever copy text directly from another source, even with attribution, unless it is a short quote properly marked as such.
- Put your name (first and last) in the top right-hand corner of every page you turn in. Do not include your student ID number or your Social Security number. On the first page, include a short description of the assignment (a few words as a title would be fine—just so I know what it is I'm looking at).
- Type your writing assignments and your project (except perhaps for figures).
- Double-space your papers, and leave wide margins (1.5 inches all around is nice), so that I have enough blank space on each page to write comments.
- Use a standard font, and print text in black.
- Use good quality paper, print on only one side, and staple the pages together.
- Include page numbers, in case the pages are accidentally stapled in the wrong order.

Resources

In this room are many excellent resources for you: the other students. Working with other students will help you and help the others.

I am also very happy to help you. As a math instructor, my goal—my job—is to see you excel in math! Because time is limited, it may be difficult or impossible to answer all of your questions during class itself. By all means, please feel free to come talk to me if you have unanswered questions, if something really isn't making sense to you, or if you just would like to talk in greater detail about a topic we have covered. The best way to contact me is by e-mail, but you are welcome to stop by my office at any time. Of course, I cannot guarantee I will be available outside my office hours unless you have made an appointment.

The math department maintains a list of people who have expressed interest in working as a private tutor. You can get a copy of this list from the department office in Avery Hall 203.

If you would like support or assistance with your writing, there are trained peer consultants at the UNL Writing Center who are available to discuss your writing with you. Please see the Writing Center Web site at <http://www.unl.edu/writing/> for locations, hours, and information about scheduling appointments.

Please make sure that your Blackboard account is active (<http://my.unl.edu/>) and that you are enrolled in the class. Your grades will be posted on Blackboard throughout the semester. You will not receive a grade for this class if you are not enrolled!