Math 211: Calculus

Instructor: Philip Matchett Wood
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office hours: Monday 10am-11am, Friday 10am-11am

Lectures: MoWeFr 12:05PM - 12:55PM, in SOC SCI 6210. Class runs Sep 06, 2017- Dec 13, 2017.

Homework will be assigned from the course text and on WeBWorK.

Webpage: Canvas, accessible through Learn@UW, or go to https://canvas.wisc.edu/courses/56895/

Note about Lectures: Please show up for each class with:

- 1 sheet of blank (both sides) white 8.5” × 11” printer paper,
- a pen or pencil

The materials are for taking in-class mini-quizzes, which will form a large portion of the class participation grade. It is important that the paper be standard printer paper because it will be scanned for grading. Unscannable paper may not be graded, and following directions for the format of the answer may count as part of the grade.

Course description
Math 211 is an introduction to calculus, covering integration, differentiation, and applications of calculus to the real world.

Calculus is a basic tool for studying data and behaviors in economics, biology, physics, and engineering. One goal of this course is to give you a solid foundation for understanding calculus when you see it in other contexts. Another goal is strengthening your abstract and quantitative reasoning skills. Your brain is like a muscle: working hard to learn calculus will strengthen your quantitative reasoning skills and leave you better prepared for when you encounter abstract or quantitative questions in the future.

Prerequisites
Basic algebra; multiplication, factoring of polynomials and rational functions; simplifying expressions; solving and graphing linear and quadratic equations; laws of exponents.

Required computer resources
There are a number of computer resources that you will need to manage.

1. Canvas (through Learn@UW; central location for course information)
2. WeBWorK (accessible through Canvas)
3. Piazza (for online Q & A; you will need a separate account)
4. Gradescope (for grading quizzes and submitting homework; you will need a separate account)

Thanks to lots of hard work by the math department and university computer system administrators, we have tested a connection that should allow you to access WeBWorK through your university Canvas account. If there are issues having the two systems communicate with each other, we may need to revert to using WeBWorK separately. My hope is that eventually Gradescope and Piazza
will be integrated with Canvas. I think these separate systems are useful enough to make it worth dealing with all of them, and I thank you for your patience in maintaining the separate accounts.

**Canvas**
This will be the central location for course information, including the course grade book. Accessible through Learn@UW or at https://canvas.wisc.edu/courses/56895/.

**Piazza**
Piazza is the question-and-answer site for this course. If you have questions, mathematical or otherwise, post them on Piazza where instructors and other students can answer. You can sign up for Piazza here: http://piazza.com/wisc/fall2017/211

**Gradescope**
This is the system that we will use for written work, including exams, section quizzes, in-class quizzes, and written homework. By using Gradescope, you will get more feedback and clearer feedback on your written work, you will be able to see graded work sooner, and you will be able to submit written homework from anywhere with an internet connection. You can sign up for Gradescope at https://gradescope.com/courses/9861 using the entry code M5VVN4.

**WeBWorK**
WeBWorK is an advanced computer homework system. It features immediate feedback and randomized problems, so everyone has a unique version of the homework question. Some deadlines will be randomized to help reduce load on the server and test what is best for learning outcomes. WeBWorK access will be initially be through Canvas, though as a fall-back plan we can access it directly if necessary. The lowest four WeBWorK assignment grades will be dropped, and there will be no other accommodations or make-ups.

**Grades**
Grades will be assigned based on scores from class participation, homework, quizzes, midterms, and the final exam. Each will count in the following proportions:

- Class participation: 7%
- Section quizzes: 7%
- Homework: 8%
- WeBWorK: 8%
- First Midterm: 20%
- Second Midterm: 20%
- Final Exam: 30%

**Class participation**
There will generally be a short (5 minute or so) mini-quiz during each class, often at the beginning. The lowest six mini-quiz grades will be dropped, and there will be no other accommodations or make-ups for mini-quizzes. At various points in the lectures, there will be chances to discuss with peers. Be respectful of your peers; learning to constructively discuss work with your peers is an important skill and an excellent way to learn. Much of the class participation grade will come from the in-class mini-quizzes, and some will also come from section participation. One seventh (that is 1% of your final grade) of the class participation grade is for completing a pro-diversity online survey that you will receive details about later (also see the Welcome Message below).

**Section quizzes**
To help prepare for in-class exams and to give you feedback on your progress in the course, there will be weekly quizzes given in section. The lowest two section quiz grades will be dropped, and there will be no other accommodations or make-ups.
Homework
Homework will be posted online, and the plan is for written homework to be turned in electronically via Gradescope. Late homework will not be accepted. The lowest homework score will be dropped from the final grade, and there will be no other accommodations or make-ups.

Be neat when writing up homework solutions and make sure you submit a clearly readable scan. Your goal is to communicate—show your reasoning and your work at a level that a classmate could understand. Turn in the second draft of your homework, not your scratch work, and write in complete sentences. Put problems in order, and staple pages together.

Homework is an opportunity for you to receive personalized feedback on your work. Homework grades will be based on demonstrated understanding of the problem and on how well you communicate as described in the previous paragraph.

Academic integrity is a serious issue. The final write-up you turn in must be your own. You are encouraged to work out ideas in groups, but you must write up your work entirely on your own and in your own words. For optimal learning, you should put away notes from such a group session (or at least refer to them as little as possible) while writing up your work by yourself.

A calculator may be used for homework problems, but no calculators are allowed for quizzes or exams.

In-class Midterms
There will be two in-class midterms, on Wednesday, October 11 and on Wednesday, November 15. Midterms will have assigned seating. Accommodations for conflicts with theses exams can only be made if you notify me of the potential conflict before September 23, 2017.

Final Exam
The final exam covers all of the material in the course. It is on 12/16/2017, Saturday from 7:25PM - 9:25PM, location TBA. The final exam will have assigned seating. Accommodations for conflicts with the final exam can only be made if you notify me of the potential conflict before October 28, 2017.

Getting Help
Students are encouraged to come to office hours for help. You may attend any TAs office hours or my office hours—see the announcement posted on Canvas for times and locations. There are other resources available, including the below which are all free:

- Math Lab, a free drop-in tutoring service run by the Math Department; see https://www.math.wisc.edu/undergraduate/mathlab
- Math Tutorial program, involves attending mandatory tutoring sessions; entry by application, with TA referral required after the fourth week. See https://www.math.wisc.edu/undergraduate/tprogram
- GUTS (Greater University Tutoring Service), a free peer tutoring service, including a drop-in center; see http://www.guts.wisc.edu/

Welcoming message
As a diverse group, the Mathematics Department strives to foster an open and supportive community in which to conduct research, to teach, and to learn. In accordance with these beliefs and 36.12 of the Wisconsin Statutes, the Mathematics Department affirms that all community members are to be treated with dignity and respect and that discrimination and harassment will not be tolerated. We further commit ourselves to making the department a supportive, inclusive, and safe environment for all students, faculty, staff, and visitors, regardless of race, religion, national origin, sexual orientation, gender identity, disability, age, pregnancy, or any other aspect of identity. For
more information, refer to https://www.math.wisc.edu/climate

I am firmly committed to promote an anti-discriminatory environment where everyone feels safe and welcome. As such, you are expected to treat your instructor and all other participants in the course with courtesy and respect. Your comments to others should be factual, constructive and free from harassing statements. Students need to contribute in intelligent, positive, and constructive manners within the course.

Disability
Your success is important to me. Reasonable accommodations for students with disabilities is a shared faculty and student responsibility. Students are expected to inform me of their need for instructional accommodations by the end of the third week of the semester, or as soon as possible after a disability has been incurred or recognized. I will work either directly with you or in coordination with the McBurney Center to identify and provide reasonable instructional accommodations. Disability information, including instructional accommodations as part of a student’s educational record, is confidential and protected under FERPA.

Mental Help
As a student you may experience a range of issues that can cause barriers to learning. These might include strained relationships, anxiety, high levels of stress, alcohol/drug problems, feeling down, or loss of motivation. University Health Services is here to help with these or other issues you may experience. You can learn about the free, confidential mental health services available on campus by calling 608-265-5600 or visiting uhs.wisc.edu. Help is always available.

There are several options for confidential support, counseling, and medical services for student victims of sexual assault, dating violence, domestic violence on and off the UW-Madison campus. Student victims also have options for reporting to campus and/or law enforcement. For information about all of these options, please visit uhs.wisc.edu/assault/sa-resources.shtml.

Academic Integrity
By enrolling in this course, each student assumes the responsibilities of an active participant in UW-Madisons community of scholars in which everyone’s academic work and behavior are held to the highest academic integrity standards. Academic misconduct compromises the integrity of the university. Cheating, fabrication, plagiarism, unauthorized collaboration, and helping others commit these acts are examples of academic misconduct, which can result in disciplinary action. This includes but is not limited to failure on the assignment/course, disciplinary probation, or suspension. Substantial or repeated cases of misconduct will be forwarded to the Office of Student Conduct & Community Standards for additional review. For more information, refer to https://www.students.wisc.edu/doso/academic-integrity/.

Typical Weekly Schedule (adjusts will likely be made in specific weeks)

<table>
<thead>
<tr>
<th>Day</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunday</td>
<td>Written HW due. and WW for Mon quiz</td>
</tr>
<tr>
<td>Monday</td>
<td>mini-quiz in lecture</td>
</tr>
<tr>
<td>Tuesday</td>
<td>WW for Wed quiz</td>
</tr>
<tr>
<td>Wednesday</td>
<td>mini-quiz in lecture and WW for section quiz</td>
</tr>
<tr>
<td>Thursday</td>
<td>section quiz and WW for Fri quiz</td>
</tr>
<tr>
<td>Friday</td>
<td>mini-quiz in lecture</td>
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<tr>
<td>Saturday</td>
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Above, WW means WeBWorK and HW means Homework. My plan is that most of the time, the mini-quiz questions will be similar to the WeBWorK due the day before.

Tentative schedule of course material
See the spreadsheet posted as part of a Canvas announcement.