Syllabus
Math 4603: Advanced Calculus

Instructor: Erin Manlove
Email: emanlove@umn.edu

Lecture: M/W/F 11:15-12:05, T/Th 11:15-1:10, NichH 315
Office Hours: to be announced
Course Website: math.umn.edu/~emanlove/4603

Focus: In this course, we revisit topics which first appeared in introductory calculus: limits, continuity, differentiation, integration, and infinite series. Now that we are armed with mature proof writing techniques, we have the tools to study the formal definitions and rigorous proofs related to this material. These topics form the foundation of an area of mathematics called analysis.

Expected audience: To be prepared for this course, students must have earned a grade of C- or higher in Linear Algebra/Differential Equations and also in Multivariable Calculus. If you are not sure that you belong in this course, speak with Erin immediately.

Grading: There will be a cumulative final exam and three midterm exams. The course components will be weighted as follows in the final course grade:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Quizzes</td>
<td>10 x 10 points</td>
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<tr>
<td>Homework</td>
<td>12 x 25 points</td>
</tr>
<tr>
<td>Midterm exams</td>
<td>3 x 100 points</td>
</tr>
<tr>
<td>Final exam</td>
<td>300 points</td>
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<tr>
<td>Total</td>
<td>1000 points</td>
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To determine course grades, I will start with the following gradelines:

A 90-100%  B 80-89%  C 70-79%  D 60-69%  F 0-59%

These intervals may be extended downward if necessary to get a balance of grades for the class. That is, if you earn 80% of the possible points for the course, you are guaranteed at least a B- in the course. However, if very few people score above 90%, then you might get a higher grade. I will provide gradelines for each exam to give students an idea of where they stand throughout the term.
Exams: It is crucial that you take every exam. Absence on an exam day will result in an exam score of zero. If extenuating circumstances arise which prevent you from taking an exam, speak with me as soon as possible. Unless otherwise indicated, no calculators, notecards, or other aids are allowed on exams. The exam schedule is listed below.

1st Midterm: Monday, July 1  
2nd Midterm: Monday, July 15  
3rd Midterm: Monday, July 29  
Final Exam: Friday, August 9, 11:15-1:10

Homework and Quizzes: In order to be successful in Advanced Calculus, students must be able to both memorize relevant definitions and theorems, and also apply those tools to solve problems. Quizzes are an opportunity for students to work on memorization, and homework is an opportunity to practice problem solving.

Each quiz will be worth 10 points. Of the 12 quizzes given throughout the term, each student's highest 10 scores will contribute to his or her course grade. Each homework assignment will be worth 25 points. Of the 14 homework assignments given throughout the term, each student's highest 12 scores will contribute to his or her course grade. Except in extenuating circumstances, no late homework will be accepted and no make-up quizzes will be given.

Disability Accommodations: Reasonable accommodations will be provided for students with disabilities on an individualized and flexible basis. Disability Services determine appropriate accommodations through consultation with the student. More information is available at http://ds.umn.edu/. If you receive test accommodations through Disability Services, I will need a copy of your accommodation letter as soon as possible. Your exams need to be scheduled by you with the DS Testing Center via the online scheduling site at least 7 days before you need to take the exam.

Scholastic Dishonesty: This includes plagiarizing, cheating on homework or tests, using an unauthorized aid on an exam, and obtaining test materials without faculty permission. Scholastic dishonesty in any portion of the academic work for a course shall be grounds for awarding a grade of F or N for the entire course.

Complaints Regarding Teaching/Grading: Students with complaints about teaching or grading should first try to resolve the problem with Erin. If no satisfactory resolution can be reached, students may then discuss the matter with Professor Mosher, Director of Undergraduate Studies of the Department of Mathematics, 115 Vincent Hall, who will attempt to mediate. Failing an informal resolution, Professor Mosher will facilitate the filing of a formal complaint.