Syllabus
Math 2263: Multivariable Calculus

Instructor: Erin Manlove
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Lecture: M-F 9:05-11:00, ApH 11
Office Hours: 11:00-12:00 M-F, ApH 11
Course Website: math.umn.edu/~emanlove/2263

Focus: In this course, we will expand the familiar ideas of differentiation and integration to functions of several variables, allowing us to use these ideas in more practical situations. Our aim is to build up to a collection of theorems analogous to the Fundamental Theorem of Calculus. These are the Fundamental Theorem of Line Integrals, Green’s Theorem, Stokes’ Theorem, and Gauss’ Divergence Theorem.

Expected audience: To be in this course, students must have earned a grade of C- or higher in Math 1272, 1372, or 1572 (or equivalent). If you are not sure that you belong in this course, speak with me immediately.

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

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework/Quizzes/WeBWorK</td>
<td>100</td>
</tr>
<tr>
<td>Midterms</td>
<td>4 x 100</td>
</tr>
<tr>
<td>Final Exam</td>
<td>250</td>
</tr>
<tr>
<td>Total</td>
<td>750</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%
I will extend these intervals 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 semester.

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. Scientific calculators are allowed on exams. However, all work must be written out so that it could be understood without a calculator. The exam schedule is listed below.

1st Midterm: Tuesday, June 28
2nd Midterm: Thursday, July 14
3rd Midterm: Friday, July 22
4th Midterm: Tuesday, August 2
Final Exam: Friday, August 5
**Homework:** The purpose of regular homework assignments is to give students practice figuring out math problems in a low-stress environment. Students are encouraged to work together, ask questions in office hours, or get outside help on the homework. In order to get credit each student must write out his or her own assignment and complete the online homework under his or her own login name.

Written homework problems will be assigned daily from *Calculus: Early Transcendentals, 6th Ed Vol 2,* by James Stewart. Each homework set is due two days after the relevant material is covered in class so that students will have time to ask questions. No late homework will be accepted. Of the 37 homework assignments, the lowest five scores for each student will not contribute to the final grade.

Online homework problems will be assigned each week using WeBWorK. Online homework will be due each Sunday covering the material from the previous week. The online assignments will give students an opportunity to address familiar concepts in a different setting with immediate feedback. Of the seven WeBWorK assignments, the lowest two scores for each student will not contribute to the final grade. This is my first time using WeBWorK, so I look forward to students' comments and suggestions.

**Quizzes:** Quizzes will be given during class according to the schedule. The purpose of the quizzes is to give students practice solving problems in a time-sensitive environment similar to a testing situation. Of the nine quizzes, the lowest two quiz scores for each student will not contribute to the final grade.

**Resource materials:** Homework problems will be selected from Stewart’s Multivariable Calculus text. For additional resources, I suggest looking at these websites.

Online readings from CSE Multivariable Calculus at the U
http://www.math.umn.edu/~nykamp/m2374/readings/topicindex.html

Calculus, Whitman College
http://www.whitman.edu/mathematics/multivariable/

Paul's Online Math Notes
http://tutorial.math.lamar.edu/Classes/CalcIII/CalcIII.aspx

**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 a graphing calculator for 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.