Spring 2010 Math 272
Multi-variable Calculus 1
Bouillon 102, 9:00 - 9:50 M-F
Bouillon 103 on occasional Wednesdays

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Office Hours: M-F 10:00 - 10:50 and by appointment.

Course Goals: Math 272 is a first course in multi-variable calculus, although the first topic is infinite sequences and convergence. You will learn what it means for an infinite series to converge, as well as how to test series for convergence. Then, we will move on to vectors and the geometry of space. Here, you will learn what the dot and cross products are, as well as how to calculate them and their geometric interpretations. Then, we will study vector valued functions and motion in space, where you will learn how to differentiate vector valued functions, as well as the geometric and physical interpretation of the derivative. Finally, we will study partial derivatives and their applications. In terms of chapters in the book, we will cover Chapters 11 through 14.

Occasionally, we will be using the computer lab in Bouillon 103. I will announce these lab days ahead of time, and I'll try to put a note up on the regular class door to remind you if you forget.

Required Text: Thomas' Calculus: Early Transcendentals 11^{th} ed.; Addison Wesley

1 Grades/Exams/Homework

Grades

Grades will be calculated using the following weighting system: Exams: 55% (broken up as follows: 15% for each mid-term and 25% for the final), Quizzes: 40%, and Homework: 5%, the formula:

$$(.4)*\frac{\text{quiz points received}}{\text{quiz points possible}}+(.05)*\frac{\text{HW points received}}{\text{HW points possible}}+(.15)*\frac{\text{Exam 1 score}}{\text{points possible on Exam 1}}$$
$$+(.15)*\frac{\text{Exam 2 score}}{\text{points possible on Exam 2}}+(.25)*\frac{\text{Final Exam score}}{\text{points possible on Final Exam}}$$

and the following scale:

	$87-89.9:B+$	$77-79.9:C+$	$67-69.9:D+$	below 60 $:F$
$93-100:A$	$83-86.9:B$	$73-76.9:C$	$63-66.9:D$	
$90-92.9:A-$	$80-82.9:B-$	$70-72.9:C-$	$60-62.9:D-$	

Exams

There will be three exams: two mid-terms and a final. The first mid-term will be on Wednesday, April 21 , the second mid-term will be Wednesday, May 12 and the Final Exam will be on Tuesday, June 8. The Final Exam will be cumulative, and **CANNOT** be taken early! **DO NOT** plan on taking your final early. If you miss an exam, you can take a make-up, but only if you have proof of a compelling reason for having missed the exam and notify me before (if possible) or within 24 hours after an exam to get a make-up. I will not give make-ups for circumstances you know about ahead of time! When a make-up exam cannot be taken before I return the corrected exam, I reserve the right to instead replace that portion of your course grade with your final exam grade.

Quizzes

We will have a take-home quiz every week, except for those weeks when we have an exam. Each quiz will be due **at noon** two days after being handed out. (So, a quiz handed out on Tuesday will be due at noon on Thursday.) I encourage you to work with other students, but you should write up your solutions in your own words.

Homework

Almost every day in class, you will receive a few homework problems. Problems assigned on a Wednesday or later will be due on the Friday of the following week **at noon**. (For example, any problems assigned on March 31, April 1, 2, 5, or 6 would all be due on Friday, April 9.) I will be assigning odd problems from the book and will grade on completion only. This means I'll be most interested in the work you've done - if you just write down an answer, you won't receive any points. It is a good idea to work with other students from class. We won't have time to do many homework problems in class, so please feel free to ask during office hours. However, don't put off asking about homework until the day before it's due. (It makes me very impatient when you come by every twenty minutes to ask about material we covered a week ago!)

Late and Make-up Policy for Homework and Quizzes

I will accept **TWO** late homeworks **OR** quizzes (but not both!) for full credit. However, this homework or quiz must be turned in within two class days of the due date. After that, I will not accept any late work. Notice that your quizzes and homework may be scanned and submitted electronically, or faxed to (509) 963-3226.

Expectation for Quizzes and Exams

Your quizzes and exams should be written up neatly and legibly, using complete sentences where appropriate. In addition, you should always try and describe what you are doing. For example, if you want to show a series converges using the ratio test, you should write "This series converges by the ratio test, because...[mathematical formulas here]".

We have a great deal of material to cover in a quarter. As a result, the pace of the class will be very fast, and it may not always be possible to answer every question in class. If you have a question that we weren't able to get to in class, please come by office hours or email me to set up an appointment if you can't make office hours. Please remember: when you come to office hours, **bring your notes**.

2 Important Dates

April 5 - Last Day for Add/Drop
April 21 - first mid-term exam
May 12 - second mid-term exam
May 14 - uncontested withdrawal deadline
June 8 - final exam

3 Legalese/Fine Print

Students with disabilities who wish to set up academic adjustments in this class should give me a copy of their "Confirmation of Eligibility for Academic Adjustments" from the Disability Support Services Office as soon as possible so we can discuss how the approved adjustments will be implemented in this class. Students without this form should contact the Disability Support Services Office, Bouillon 205 or dssrecept@cwu.edu or 963-2171.