MATH 554 (Analysis I), Fall 2013

Meeting Information:
Classroom Location: LC 121
Days and Times: MWF 1:10PM–2:00PM
Instructor Information
Xinfeng Liu
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Phone: 576-5849
Office Location: LC 422
Office Hours: MWF 11:00AM–12:30PM or by prior appointment
Course Homepage: www.math.sc.edu/∼xfliu/teaching/Fall2013/math554.htm
Textbook
Introduction to Analysis, 5th Edition, by Edward D. Gaughan.
Prerequisite
Completion of Math 241 with a grade of C or better. (But, in practice, most students in this course should have a C or better in, at least, Math 574 and 544 (526)).
Subject Materials
This course will cover the materials presented in Chapters 0-5 of the text. One of the goals of this course is to provide the theoretical foundation of many results used in Calculus. In Calculus the emphasis is on how to calculate limits, derivatives and integrals, while here the emphasis will be on the definitions, theorems and proofs, which show the justification of what we do in Calculus.
Homework
Homework will be assigned for each section, and will be collected regularly (Friday). Late homework will not be accepted, and no make-ups for missing homework. Details about this will be given as appropriate. Your homework grade will be based on your eight (8) highest homework scores.
Exams
There will be two midterm exams and a comprehensive final exam. The exams are "closed book": no books, no notes, no calculators, no labtop comptuer or equivalent technology, etc. There are no early exams. A late exam is only possible for a written legitimate documented reason. Note that student athletes, participating in a USC athletic event and with appropriate documentation, are exempt from this rule. You must take your exams with the lecture for which you are registered.

Grades

Homework (25%) (highest 8 scores)
Exam 1 (20%), Friday, September 27   Chapters 0-2
Exam 2 (20%), Friday, October 25   Chapters 3-4
Final (35%), Thursday, December 12, 2013   Chapters 0-5

The deadline to drop this course without a grade of W is **Wednesday, August 28, 2013**. The dates and materials for two mid-term exams are tentative and subject to change as announced in class.

Reading

Reading the textbook **in advance** of the lecture is strongly encouraged. Benifits of this preparation include obtaining a familiarity with the terminology and concepts that will be encountered (so you can distinguish major points from side issues), being able to formulate questions about the parts of the presentation that you do not understand, and having a chance to review the skills and techniques that will be needed to apply the new concepts.

Learning Outcome

Students will master concepts of real analysis and learn how to do proofs. Successful students in Analysis I will become knowledgeable about and will master concepts of real analysis and will improve their ability to write and read mathematical proofs, particularly those related to the least upper bound axiom, compactness, sequences, continuity, uniform continuity, differentiation, Riemann integration, and the fundamental theorem of calculus.

Attendance

Attendance at every class meeting is important - and expected. Students missing more than 10% of the class meetings (4 days) can have their grade lowered.

Cell Phone and Computer Policy

Please remember to turn off or silence your cell phone prior to class. No texting allowed during class. Computers can only be used to make notes during class, and playing computer games during class is not tolerated.

Graduate Credit

Students taking Math 554 for graduate credit will have additional or some different questions on tests.

Academic Dishonesty

Cheating and plagiarism in any form is not tolerated. If a student is caught cheating, I will follow the guidelines as set forth in the USC Honor Code and other University guidelines.