
MthSc 453: Advanced Calculus I (Real Analysis)

SUMMER 2012

Martin Hall E-005, MTWRF 11:30-1:00

Instructor	Matthew Macauley (macaule@clemsun.edu) OFFICE: Martin Hall O-325 PHONE: (864) 656-1838 OFFICE HOURS: Daily at 2:30pm, or by appointment WEBSITE: http://www.math.clemson.edu/~macaule/classes/m12_mthsc453/												
Textbook	<i>Principles of Real Analysis</i> , by Walter Rudin. (Available in paperback for \$10.95.)												
Prerequisites	MthSc 206 (Vector Calculus).												
Policies	<ul style="list-style-type: none">• Attendance: I will take attendance. If you miss a class for some reason, it is your responsibility to get notes, etc. from someone in class. I will not repeat lectures during my office hours. I prefer to know in advance if you cannot make a lecture, and may give you an excused absense if you inform me at least 12 hours before class.• If you get an A or B on the final exam, then your final grade in the course will be AT LEAST the grade you earned on the final exam, as long as you (<i>i</i>) attend class very regularly, AND (<i>ii</i>) maintain a passing grade on the homework.• If you want to know your grade at any point during the semester, consult the grading rubric below.• All drop/add procedures are your responsibility.• Absent Professor Policy: If the instructor has not arrived within 15 minutes of the scheduled class time, you may assume that class has been canceled.• All use of cell phones, laptops, and PDAs is prohibited during lecture. Calculators, cell phones, laptops, and PDAs will not allowed during exams.• Cell phone policy: http://www.youtube.com/watch?v=FYwpxU_G4Z0• I will <i>not</i> post homework solutions. However, I will gladly help you with any of the problems during office hours.• No whining.												
Learning Outcomes	There are three main goals of this course: <ul style="list-style-type: none">• Gain a solid understanding of real analysis at the undergraduate level. In particular, we will cover approximately the first five chapter of Rudin's book.• Learn to understand, read, and write rigorous mathematical proofs.• Develop good mathematical writing skills. Important aspects of this are <i>accuracy</i>, <i>clarity</i>, and <i>conciseness</i>.												
Grading	The final grade will be calculated as follows: <table><tr><td>HOMEWORK:</td><td>25%</td></tr><tr><td>ATTENDENCE:</td><td>5%</td></tr><tr><td>QUIZZES:</td><td>10%</td></tr><tr><td>MIDTERM 1:</td><td>20%</td></tr><tr><td>MIDTERM 2:</td><td>20%</td></tr><tr><td>FINAL EXAM:</td><td>40%</td></tr></table>	HOMEWORK:	25%	ATTENDENCE:	5%	QUIZZES:	10%	MIDTERM 1:	20%	MIDTERM 2:	20%	FINAL EXAM:	40%
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Your lowest midterm grade OR half the weight of your final exam will be dropped. Make-up exams will be given **ONLY** with an official written excuse in advance, and will not necessarily be the same as the regular exam.

GRADING SCALE: $A \geq 90\% > B \geq 80\% > C \geq 70\% > D \geq 60\% > F$

Homework Homework assignments will accumulate from lecture to lecture and will be due several times a week. I will post the assignments on my website. Students can collaborate on their homework problems, but they *must* write up and submit their homeworks separately. Late homeworks will **not** be accepted. You are strongly encouraged to type your homework assignments (L^AT_EX preferred but not required), and you will get an extra night to complete it if you do (okay to hand-draw pictures, though). You should keep all the graded homeworks in case of missing grades due to missing name or typo errors.

Key Dates

May 16 (Wed)	Classes begin; late enrollment fee applies
May 17 (Wed)	Last day to register or add a class
May 21 (Wed)	Last day to drop a class or withdraw from the University without a W grade
June 7 (Fri)	Last day to drop a class or withdraw from the University without final grades
June 20 (Wed)	Study day (Null hypothesis: class <i>will</i> be held)
June 21 (Thu)	MthSc 453 Final Exam (11:30–2:00pm)

The official statement on Academic Integrity

As members of the Clemson University community, we have inherited Thomas Green Clemson's vision of this institution as a *high seminary of learning*. Fundamental to this vision is a mutual commitment to truthfulness, honor, and responsibility, without which we cannot earn the trust and respect of others. Furthermore, we recognize that academic dishonesty detracts from the value of a Clemson degree. Therefore, we shall not tolerate lying, cheating, or stealing in any form.

When in the opinion of a faculty member, there is evidence that a student has committed an act of academic dishonesty, the faculty member shall make a formal written charge of academic dishonesty including a description of the misconduct, to the Dean of the Graduate School. At the same time, the faculty member may, but is not required to, inform each involved student privately of the nature of the alleged charge.