

MATH 4100/6100: Real Analysis -- Fall 2009

Instructor: Dr. Shuzhou Wang

Class Time, Location: MWF 11:15A-12:05P, Boyd 222

Office Hours: MWF 2:30-3:30pm, Boyd 507, or by appointment.

Phone, E-mail: 542-0884, szwang at math dot uga dot edu

Course web Page: <http://www.math.uga.edu/~szwang/teaching/4100-f09.html>

Text: A first course in real analysis, M.H. Protter, C.B. Morrey. QA300 .P968

Suggested References:

--Understanding analysis / Stephen Abbott. QA300 .A18 2001 (not hard)

--Analysis / Steven Lay. QA300 .L427 2006 (Elementary)

--Principles of mathematical analysis / Walter Rudin. QA300 .R8 1976 (hard)

Other books whose calling numbers begin with QA300 might be helpful too.

Prerequisites: MATH 3100 and MATH 3200 or equivalents

Objectives/Topics of the Course: This course will develop the foundation of the theory of calculus. Topics include (see UGA undergraduate/graduate Bulletins): Metric spaces and continuity; differentiable and integrable functions of one variable; sequences and series of functions.

Homework Assignments will be posted on the course web page [here](#). Download [Adobe® Acrobat® Reader™](#) to view them if you do not have it. If you have not taken an honors calculus course, you will most likely experience some culture shock--Unlike a regular calculus course, problems in this course are not routine and you are required to write convincing proofs. It is not uncommon that you will spend hours, sometimes even days, to solve a single problem. If you don't persist, you will benefit little from the course. View [Axioms of Reals here](#). See also [Notes on homework solutions here](#).

Homework will normally be given and collected each week. There will be two "mid-term" exams and a final. The first midterm will be given before the withdrawal deadline. The final exam is scheduled by the university and cannot be altered. The final exam is comprehensive.

No late homework will be accepted and no make-up tests will be given. Homeworks are always due during class on the due date. A missed test or homework will be assigned the score 0. (If you miss one of the "mid-term" tests in an extreme situation, I will apply your final exam score to that test.)

Important Dates From [UGA Calendar](#):

Classes begin	Aug. 17, M
Drop for undergraduate-level courses (1000-5999)	Aug. 17-20, M-Th
Add for undergraduate-level courses (1000-5999)	Aug. 17-21, M-F
Drop for graduate-level courses (6000-9999)	Aug. 17-24, M-M
Add for graduate-level courses (6000-9999)	Aug. 17-25, M-Tu
Holiday (Labor Day)	Sept. 7, M
Midterm	Oct. 8, Th
Withdrawal Deadline	Oct. 22, Th
Fall Break	Oct. 30, F
Last Day of Classes (prior to Thanksgiving Break)	Nov. 20, F
Holiday (Thanksgiving)	Nov. 23-27, M-F
Classes Resume	Nov. 30, M
Friday Class Schedule in Effect*	Dec. 8, Tu
Classes End	Dec. 8, Tu
Reading Day	Dec. 9, W
Final Exam	Thurs., Dec. 10 12:00 - 3:00 pm

Class Attendance and Participation are very important in this class. *You are responsible for all information and announcements given in class, such as time and schedule changes, ad hoc announcements, etc, even if your absence is excused. This implies that you should not be surprised if you have missed classes and show up for a test originally scheduled, but find it has been given or otherwise rescheduled.* In order to protect class from distraction, coming-later-for and leaving-early-from classes are discouraged. Please let me know in advance if you **must** come late or leave early. If you missed classes or came late to classes, try first to obtain missed information from your classmates.

Collaboration and [UGA Academic Honesty Policy](#) : You are encouraged to form study groups to discuss the material of the course. However, you must write up your own homework with your own words and understanding. **Plagiarism**, among other things, is prohibited. Above all, **UGA Academic Honesty Policy** applies: "All students are responsible for maintaining the highest standards of honesty and integrity in every phase of their academic careers. The penalties for academic dishonesty are severe and ignorance is not an acceptable defense." If your homework uses ideas/help of others, you need to acknowledge this in the work. For more information, visit the web page http://www.uga.edu/honesty/ahpd/culture_honesty.htm

Grading Policy: Course grade will be assigned approximately according to: Homework 30%; Tests 40%; Final 30%. The raw points in each of these will be converted to reflect the percentages.

Letter grades are normally given as follows (numbers are in percentages): A = 90 to 100; A- = 88 to 90-; B+ = 85 to 88-; B = 80 to 85-; B- = 78 to 80-; C+ = 75 to 78-; C = 70 to 75-; C- = 65 to 70-; D = 55 to 65-; F = 0 to 55-.

If your circumstance requires special arrangement, please let me know. I will be glad to accomodate.

Disclaimer: This syllabus provides a general guide for the course. Deviation may be necessary.