

MATH 4433 Section 001
Introduction to Analysis I
MWF 10:30 - 11:20, PHSC 115

Instructor: Dr. Keri Kornelson

Office: PHSC 926

Phone: (405) 325-7946

email: kkornelson@math.ou.edu

Office Hours: M: 4:30 - 5:30, T: 5:00 - 6:30, F: 2:00 - 3:30 I am always happy to set up appointments for students who cannot come to office hours.

Course Assignments and Announcements: The readings and homework assignments will be posted on the web each week. You will be notified by email of any changes in the posted assignments. The web address for the assignments is:

<http://www.math.ou.edu/~kkornelson/teaching/m4433/hw-m4433-f09.html>

Textbook: *Real Analysis and Foundations*, Second Ed. by Steven G. Krantz, published by Chapman & Hall / CRC. You may find *An Introduction to Analysis*, Third Ed. by William R. Wade to be a useful second resource. Both books are on reserve at the MATH-CHEM library.

Grading: Your grade will be determined by quizzes, weekly homework, a presentation, two in-class exams, and a cumulative final exam. The weights of each of these are shown below.

Quizzes	10%	
Homework	30%	
Presentation	10%	
Exam 1	15%	
Exam 2	15%	
Final	20%	Monday, Dec. 14, 2009 8:00 - 10:00 a.m.

You must take these exams at their scheduled time and location, unless you have a university sanctioned excuse. Grades will be assigned according to the following scale:

A	B	C	D	F
85-100%	75-84%	65-74%	55-64%	0-54%

Quizzes: The essential first step in creating a correct deductive argument is knowing precise statements of the applicable definitions and theorems. These MUST become part of your everyday language. Every lecture, be prepared to start with a quiz to check your knowledge of the definitions presented either in the previous lecture or the reading for the current day. There will also be some group activities that count toward your quiz grade.

Readings: For each lecture, there will be pages from the text posted on the Web that you are expected to read *before* class that day. You are responsible for the material in the reading, whether or not it is discussed in lecture.

- This is a good time to make flashcards to prepare for the next quiz. If you do this regularly, they are all ready when you are studying for the midterms.
- Reading mathematics always involves a pencil and paper. Try covering the solution to an example with a Post-it and attempting to work it out on your own.

Homework: Homework will be collected at the beginning of class each Wednesday. The assignments will be posted on the Web. Here are some guidelines:

- One of the goals of this course is that you will learn to write logically correct, understandable proofs. Consider each problem to have two parts. The first is to *solve* the problem, which may involve discovering a sequence of steps that prove a given statement. This should be done on scratch paper. The second part is to write up the proof. This will seem more like a writing assignment. Each step should be stated, with a clear explanation of why it follows from the previous step. You will be evaluated on both aspects of the assignment, so don't neglect the write-up in an effort to finish quickly and move on to the next problem!
- You will be assigned very few problems, compared with lower level courses. Each problem will take quite a lot of time, however, so you should definitely start working on the problems right away. You need time to get stuck, ask questions, and then go back and figure it out. You also need time to write up your solutions.
- **Collaboration on homework:** You are allowed, in fact encouraged, to work together to figure out proofs on the homework, but *you must acknowledge your collaborators*. Each problem should have an acknowledgment statement giving the names of the other students who worked with you on the solution. You should also acknowledge conversations with me in office hours.

Collaborations with each other must not result in identical homework papers. The best approach is to work together on the first stage (solving the problem on scratch paper), and then work independently on the second part (the write-up).

- **Administrative stuff:** Homework should be clearly marked with your name and the assignment number. It should be easy to read with appropriate spacing. Assignments turned in after 4pm of the due date will not be accepted. Each assignment should be *stapled* (not paper-clipped, folded, ripped, origami'd, etc.) I reserve the right to take off points!

Presentations: You will be asked to find a partner and prepare a 15-minute presentation involving proof of a theorem and examples illustrating the theorem. The material in the presentations will be part of the course, so it may show up in homework and exams. It is therefore very important to carefully prepare your presentation and also to pay close attention and ask questions during the presentations of other students. Topics and dates of presentations will be arranged in class.

Make-Up Policy: Make-ups for missed exams will only be allowed for a university-approved excuse in writing. Please let me know as early as possible in the semester if you must miss an exam due to an athletic event or other college activity.

Some Important Dates:

- Labor Day holiday, no class meeting: Monday, September 7, 2009.
- Last day to withdraw with an automatic W: Friday, October 2, 2009.
- Texas football game weekend (pending approval), no class meeting: Friday, October 16, 2009.
- Thanksgiving Holiday: Wed. - Fri., November 25-27, 2009.

Academic Misconduct: You are permitted (in fact encouraged) to work together and ask for assistance in solving homework problems, but you must write up the assignments independently. Work completed on exams and closed-book quizzes must be exclusively your own.

Academic dishonesty will not be tolerated in this course. *Don't do it!* You are responsible for reading and abiding by the University's policies concerning academic misconduct, which can be found at

<http://www.ou.edu/provost/integrity/>

You are also bound by the provisions of the *OU Student Code*, which can be found at

<http://judicial.ou.edu/content/view/27/32/>

All cases of suspected academic misconduct will be referred to the Dean of the College of Arts and Sciences for prosecution under the University's Academic Misconduct Code.

Accommodation of Disabilities: Please inform me as soon as possible if you have a disability or special need which requires accommodation in order for you to participate fully in this course. Students with disabilities must be registered with the Office of Disability Services prior to receiving accommodations in this course. The Office of Disability Services is located in Goddard Health Center, Suite 166, phone: (405) 325-3852 or TDD only (405) 325-4173.