This course is an introduction to real analysis. The main topics of the course include: fundamentals on sets and functions, basic ordering and topological properties of $\mathbb{R}$, sequence and series of real numbers, the concepts of continuity, as well as rigorous mathematical treatment of differential and integral calculus in one variable case. *Warning: This is rigorous mathematics class that is based on proofs!*

**Prerequisite.** Two of the following courses, with grade of at least C- in each: M341, 328K, 325K (Philosophy 313K may be substituted for M325K), with a grade of at least C. This course may not be counted by students with credit for M365K with a grade of C- or better.

**Class Time and Location.** The class will meet MTWThF 8:30 AM - 10:00AM @ RLM 5.116.

**Instructor.** Kui Ren  
Office: RLM 10.170  
Phone: 512-471-3152  
Email: ren@math.utexas.edu  
Office Hours: MWF 10:00AM-11:00AM + Appointments.

**Homework and Exams.** There will be twelve homework sets. The first eleven homework will be graded, each based on 100 points. The lowest scores from your homework will be dropped when calculating your final score. No late homework will be accepted without compelling reasons. There will be one in-class midterm exam, based on 100 points, and a final exam, also based on 100 points. In general, no makeup exam will be arranged without compelling reasons.

**Grading Policy.** The final grade will be weighted roughly as follows:  

Homework 30%, Midterm 30%, Final 40%

Let $\{H_i\}_{i=1}^{10}$ be the 10 highest scores selected from your homework scores, $E$ be your score on the midterm exam, and $F$ be your score on the final exam. Then
your final score will be computed as

\[
\text{Final Score} = \frac{1}{10} \sum_{i=1}^{10} H_i \times 0.3 + E \times 0.3 + F \times 0.4.
\]

The final scores of the class will be linearly rescaled so that the highest score in the class is 100. The letter grades are distributed as follows:

- 90% - 100% : Grade A
- 80% - 89% : Grade B
- 70% - 79% : Grade C
- 60% - 69% : Grade D
- 0% - 59% : Grade F

**Course Webpage.** All the homework will be posted on the university teaching tool, the blackboard system:

https://courses.utexas.edu/webapps/portal/frameset.jsp

**Textbooks.**

Introduction to Real Analysis (required)
Robert G. Bartle and Donald R. Sherbert, Wiley, 2011

**Important Dates.**

- 06/04/2015, First day of class for F361K-89420
- 06/05/2015, Last day of official add/drop period
- 06/09/2015, Last day to drop the class with possible refund
- 06/24/2015, Midterm for F361K-89420
- 06/24/2015, Last day to change registration to credit/no credit
- 07/09/2015, Last day of class for F361K-89420
- 07/11/2015, Final exam for F361K-89420

**Miscellaneous.**

- The University of Austin provides upon request appropriate academic accommodations for qualified students with disabilities. For more information, contact the Office of the Dean of Students at 471-6259, 471-6441 TTY.
• It is the policy of The University of Texas at Austin that “a student who misses classes or other required activities, including examinations, for the observance of a religious holy day should inform the instructor as far in advance of the absence as possible, so that arrangements can be made to complete an assignment within a reasonable time after the absence”.

• The following recommendations regarding emergency evacuation are from the Office of Campus Safety and Security:

1. Occupants of buildings on The University of Texas at Austin campus are required to evacuate buildings when a fire alarm is activated. Alarm activation or announcement requires exiting and assembling outside.

2. Familiarize yourself with all exit doors of each classroom and building you may occupy. Remember that the nearest exit door may not be the one you used when entering the building.

3. Students requiring assistance in evacuation shall inform their instructor in writing during the first week of class.

4. In the event of an evacuation, follow the instruction of faculty or class instructors.

5. Do not re-enter a building unless given instructions by the following: Austin Fire Department, The University of Texas at Austin Police Department, or Fire Prevention Services office.


7. A link to information regarding emergency evacuation routes and emergency procedures can be found at: www.utexas.edu/emergency