This course is an introduction to real analysis. The main topics of the course include: Euclidean spaces, fundamental concepts in metric spaces, the concepts of continuity, compactness, differentiation and integration in one variable case, as well as sequences and series of real-valued functions. Warning: This is rigorous mathematics class that is based on proofs!

Prerequisite. There is no official prerequisite for taking this class. Please talk to the instructor if you are not sure about whether or not you have the right preparation for this course. Two of M341, 328K or 325K with a grade of at least C should be sufficient.

Class Time and Location. The class will meet MTWThF 1:30 PM - 3:00 PM @ BRB 1.118.

Instructor. Kui Ren
Office: RLM 10.170
Phone: 512-471-3152
Email: ren@math.utexas.edu
Office Hours: M W F 12:30PM-1:30PM + Appointments.

Homework and Exams. There will be eight homework sets. The first seven 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 \( \{H_i\}_{i=1}^{6} \) be the 6 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

\[
\text{Final Score} = \frac{1}{6} \sum_{i=1}^{6} H_i \times 0.3 + E \times 0.3 + F \times 0.4.
\]

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.

Fundamental Ideas of Analysis (required)
Michael Reed
John Wiley & Sons, Inc, 1998

Real Analysis with Economic Applications (recommended)
Efe A. Ok
Princeton University Press, 2007

Principles of Mathematical Analysis (recommended)
Walter Rudin

Important Dates.

- 07/15/2013, First day of class for ECO392M-83411
- 07/16/2013, Last day of official add/drop period
- 07/18/2013, Last day to drop the class with departmental approval
• 07/31/2013, Midterm for ECO392M-83411
• 08/02/2013, Last day to change registration to credit/no credit
• 08/16/2013, Last day of class for ECO392M-83411
• 08/17/2013, Final exam for ECO392M-83411

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