

THE UNIVERSITY OF TEXAS AT EL PASO
COLLEGE OF SCIENCE
DEPARTMENT OF MATHEMATICAL SCIENCES

Course #: Math 5331 - 18752
Course Title: Real Analysis-Measure Theory
Credit Hrs: 3
Term: Fall 2018
Course Meetings & Location: MW 1:30PM-2:50PM in **Health Science/School of NURS 215**
Prerequisite Courses: A good foundation in General Topology, Linear Algebra, and Advanced Analysis. Some notions on Normed and Metric Space theory will be of invaluable help. However, the class will be essentially self-contained and all mathematical objects (beyond those studied in elementary undergraduate math classes) needed, will be defined on the way.

Course Fee: (if applicable)
Instructor: M. A. Khamsi
Office Location: Bell Hall 328
Contact Info: 747-6763 Phone #
Mohamed@utep.edu E-mail address
747-6502 Fax #
747-6750 Emergency Contact
Office Hrs: TR 12:00 to 1:00, and by appointment.

Textbook(s), Materials: Required: **Real Analysis**, Third Edition by H. L. Royden
Suggested:

Course Objectives (Learning Outcomes): Know the concept of Lebesgue measure on real line, general measure theory. Convergence theorems, Lusin's theorem, Egorov's theorem, L^p -spaces, Fubini's theorem. Functions of bounded variation, absolutely continuous functions, Lebesgue differentiation theorem.

Course Activities/Assignments: Assessment of Course Objectives: There will two midterms, and the final exam.

Grading Policy: The in class midterms count 50% and the final exam count for 50% towards your overall class average.

Make-up Policy: Make-up tests will only be given under extraordinary circumstances and only if you notify the instructor prior to the exam date.

Content: The course will cover Chapters 2, 3, 4, 5, 6 and 7 of the textbook.

Fair Warning: It is expected that you spend an absolute minimum of at least three hours outside of class for every in-class session on solving problems, reading the textbook and reviewing your class notes. If you do not have the time necessary, you should take the course some other semester. Be alert and remember that previous math class experience is unlikely to be enough to coast on. Treat each topic as if you were meeting it for the first time, and be alert to make sure you understand each day's material before the next class meeting.

- Attendance Policy:** It is a must you attend all lectures. Unjustified absences will result in points taken from the Part average.
- Academic Integrity Policy:** For more on this, please refer to UTEP's policy cited in:
<http://academics.utep.edu/Default.aspx?tabid=23785>
- Civility Statement:** As a general rule, anything that will disturb other students will not be admitted.
- Disability Statement:** If a student has or suspects he/she has a disability and needs an accommodation, he/she should contact the Disabled Student Services Office (DSSO) at 747-5148 or at dss@utep.edu or go to Room 106 Union East Building. The student is responsible for presenting to the instructor any DSS accommodation letters and instructions.
- Military Statement:** If you are a military student with the potential of being called to military service and/or training during the course of the semester, you are encouraged to contact the instructor as soon as possible.
- Course Schedule:** The final exam is comprehensive and will be held **Wednesday December 12, from 4:00 PM to 6:45 PM**. The class schedule lists **Friday November 2** as the last day to drop with an automatic "W". The instructor will NOT assign a "W" for students dropping the course after the deadline.