Course #: Math 5331  
Course Title: Real Variables  
Credit Hrs: 3.0  
Term: Spring 2014  
Course Meetings & Location: TR 1:30pm-2:50pm  
Prerequisite Courses: Math 5321  
Course Fee: (if applicable) N/A  
Instructor: Maria Christina Mariani  
Office Location: Bell Hall 120  
Contact Info: Phone # 915-797-5761  
E-mail address: mcmariani@utep.edu  
Fax # 915-747-6502 (Math Department)  
Emergency Contact: 915-747-5761 (Math Department)  
Office Hrs: TR 9:00am-10:00am or by appointment  

Textbook(s), Materials: Required: H.L. Royden, Real Analysis (Fourth Edition)  

Course Objectives  
(Learning Outcomes): Learn and apply the concepts related to sets, functions and integration (by using measure theory). Lebesgue integration, integration with respect to measure, absolute continuity, Fundamental Theorem of Calculus for the Lebesgue integral.  

More of the results that we shall discuss have generalizations that apply in several situations.  

We will study how these tools work in many applications and we will illustrate the power of the methods and their applications in Functional Analysis and Probability theory.  

Course Activities/Assignments: I will assign homework every week, and students will solve homework problems in class.  

Assessment of Course Objectives: Exams: Two exams will be given. The dates of the exams are below in Course schedule. The exams will include in class problems and take home problems. Final Exam: The comprehensive final exam will be given on Thursday, May 15, 1:00pm -3:45 pm
Course Schedule (tentative):

Thursday 2/13 Exam #1

3/10 – 3/14 Spring Break

Thursday 3/27 Exam #2

Drop Deadline – Friday, April 4

5/5-5-8 Review

**Final Exam:** The comprehensive final exam is scheduled on Thursday 5/15 1:00pm – 3:45pm.

We will cover Chapters 1-6, 11 and part of 12.
Grading Policy: Quizzes, homework and class participation 25%
Two in class exams 20% each
Final exam: 35%
The usual standard grading scale will be used (90-100% = A, 80-89% = B, 70-79% = C, etc.).

Make-up Policy: Make-up exams and quizzes will be given only in extraordinary circumstances, which must be documented as early as possible. No late homework accepted. There is no makeup final exam.

Attendance Policy: It is the student’s responsibility to attend every class, if you miss a class, you will miss a lot of information. If you try to go from one class to another without studying, you will most likely be completely lost during the next class. Students are expected to arrive for class on time and to remain for the class entire period. It is essential to pay attention in class and take legible notes. It is essential to read the textbook and work through the example problems given in the book and class. Failure to accomplish the above, as a minimum almost invariably ensures a less than satisfactory grade for this course.

Academic Integrity Policy: The University policy is that all suspected cases or acts of alleged scholastic dishonesty must be referred to the Dean of Students for investigation and appropriate disposition. Any student who commits an act of scholastic dishonesty is subject to discipline. Scholastic dishonesty includes, but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts.

Each student is responsible for notice of and compliance with the provisions of the Regents’ Rules and Regulations, which are available for inspection electronically at

All students are expected and required to obey the law, to comply with the Regents’ Rules and Regulations, with System and University rules, with directives issued by an administrative official in the course of his or her authorized duties, and to observe standards of conduct appropriate for the University. A student who enrolls at the University is charged with the obligation to conduct himself/herself in a manner compatible with the University's function as an educational institution.

Any student who engages in conduct that is prohibited by Regents’ Rules and Regulations, U. T. System or University rules, specific instructions issued by an administrative official or by federal, state, or local laws is subject to discipline, whether such conduct takes place on or off campus or whether civil or criminal penalties are also imposed for such conduct.
Civility Statement: Calculators may not be shared during quizzes and exams. Please do not use cell phones, pagers, IPods, MP3 players, blue tooth devices, etc. during class. Cell phones and pagers should be set to silent or vibrate, and any calls should be taken outside of class. Please do not wear headsets or blue tooth devices during class. Please don’t talk in class. Cell phone calculators may not be used on quizzes or exams. Active participation in class is expected, teamwork in class will be implemented.

Disability Statement: If you have a disability and need classroom accommodations, please contact: The Center for Accommodations and Support Services (CASS) at 747-5148, or by email to cass@utep.edu, or visit their office located in UTEP Union East, Room 106. For additional information, please visit the CASS website at www.sa.utep.edu/cass.

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 semester, please contact me by the end of the first week of class.