SYLLABUS
MAT 701, Real Variables I

Instructor: Prof. Eugene Poletsky
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Office hours: T, 3:30-5 PM, Th, 12:30-3 PM, and by appointment.

Class meetings are in 111 Carnegie, 11-12:20 PM

Course Description: This course is an introduction to graduate real analysis. Topics include: measures, σ-algebras, outer measures, Borel measures, measurable functions, integration, modes of convergence, Fubini-Tonelli theorem, decomposition and differentiation of measures, signed measures, Lebesgue-Radon-Nikodym theorem, Banach Spaces, L^p spaces.

Textbook: R.L. Wheeden, A. Zygmund, *Measure and Integral. An introduction to real analysis.*, Taylor & Francis, New York, 1977.

Homework: There is no sense to take this course if you are not going to solve problems. Attached is the list of problems that seem to be important. The problems on the tests and final exam will be similar to these. Additional problems may be assigned in class. You are encouraged to collaborate with other students in working on homework problems, but remember that you will have to do your own work on the tests and final exam. Homework will be collected and graded. The pickup day is Tuesday.

Tests: The course grade will be based on a midterm exam (30%) in the last half of October, a final exam (40%) in December and homework problems (30%). Tests and final exam will be closed book, close notes. Final exam covers the entire course and must be taken by students who want a passing grade. Contact me at least 2 weeks before the final if you have any conflict with this exam.

Grades: As you should know, the course grades include plus and minus grades. In order to keep grading policies as uniform as possible we shall follow the Math. Dept. guidelines for assigning letter grades to numerical scores.

Numerical score p=points					
$93<p<100$	A	$90<p<92$	A	$87<p<89$	B+
$83<p<86$	B	$80<p<82$	B-	$77<p<79$	C+
$73<p<76$	C	$70<p<72$	C-	$60<p<69$	D
$0<p<59$		F			

Make-ups: No make-up examinations will be given. If you expect to miss an examination for a legitimate reason, discuss this, in advance, with your instructor, who may then substitute the relevant score from your final examination for the missing grade.

Calculator policy: A calculator is not required for this course. In particular, no calculators will be allowed on the exams or quizzes. Use or availability of any calculator or other electronic device on the exams or quizzes will be a violation of the Academic Integrity Policy. You may u s e calculators for learning purposes and for solving homework. On exams and quizzes complete solutions, and not merely answers, must be presented to receive credit.

Attendance: You are expected to attend class and participate in it. If you miss a class, you are responsible for obtaining notes and any announcements from that class from another student.

Students with disabilities: If you believe that you need accommodations for a disability, please contact the Office of Disability Services(ODS), http://disabilityservices.syr.edu, located in Room 303 of 804 University Avenue, or call (315) 443-4498 for an appointment to discuss your needs and the process for requesting accommodations. ODS is responsible for coordinating disability- related accommodations and will issue students with documented disabilities Accommodation Authorization Letters, as appropriate. Since accommodations may require early planning and generally are not provided retroactively, please contact ODS as soon as p o s s i b l e .

Academic integrity: The Syracuse University Academic Integrity Policy holds students accountable for the integrity of the work they submit. Students should be familiar with the Policy and know that it is their responsibility to learn about instructor and general academic expectations with regard to proper citation of sources in written work. The policy also governs the integrity of work submitted in exams and assignments as well as the veracity of signatures on attendance sheets and other verifications of participation in class activities. Serious sanctions can result from academic dishonesty of any sort. For more information and the complete policy, see http://academicintegrity.syr.edu

Complete academic honesty is expected of all students. Any incidence of academic dishonesty, as defined by the SU Academic Integrity Policy, will result in both course sanctions and formal notification of the College of Arts & Sciences.

Religious observances policy: SU religious observances policy recognizes the diversity of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holidays according to their tradition. Under the policy, students are provided an opportunity to make up any examination, study, or work requirements that may be missed due to are religious observance provided they notify their instructors before the end of the second week of classes. For fall and spring semesters, an online notification process is available through MySlice (Student Services $\longrightarrow$ Enrollment $\longrightarrow$ My Religious Observances) from the first day of class until the end of the second week of class.