

SYLLABUS FOR MATH 211, GRADUATE REAL ANALYSIS

TUFTS UNIVERSITY
SPRING 2015

Professor: Moon Duchin (Moon.Duchin@tufts.edu)
Lectures: MWF from 10:30-11:20 (E block) in BP 5 [w. poss. extension into E+]
Text: Stein & Shakarchi, Real Analysis (Princeton Lectures in Analysis Vol III)
Office Hours: TBA/by appointment, BP 113
Teaching Assistant: Lise Chlebak (Lise.Chlebak@tufts.edu)

This is a rigorous graduate core course in real (and some functional) analysis. We will cover almost all of the text: Ch 1–2 (measure and Lebesgue integration), Ch 4 (Hilbert spaces), Ch 6 (abstract measures, Radon-Nikodym), and Ch 7 (Hausdorff measure and fractals), with selections from Chapters 3 and 5 (bounded variation, examples of Hilbert spaces).

Real analysis is best appreciated in historical context, which I will gladly provide.

Assignments and exams. There will be weekly homework, bi-weekly “mini-tests,” a midterm, and a final. You are *encouraged* to work together on the problem sets. Mini-tests are very short in-class tests given roughly every two weeks, just to make sure that each person is developing individual proof skills.

Academic integrity. Though you are encouraged to work together, your written work must be in your own words, and you must indicate working partners. Academic integrity is taken very seriously in this course; please refer to the Code of Conduct in the [Student Handbook](#) to review University policy. I ask that you not use the internet while doing your homework assignments.

Learning objectives. Math 211 meets the following Learning Objectives: basic understanding of higher mathematics; written communication; problem solving skills.

Accessibility accommodations. We will gladly work to accommodate any disabilities brought to our attention. If you are requesting an accommodation due to a documented disability, please register with the Student Accessibility Services Office at the beginning of the semester. To do so, call 617-627-4539 to arrange an appointment with Linda Sullivan, Program Director of Student Accessibility Services.

Homework identifiers. Because homework is collected and returned in class and may spend some time in mailboxes, you have the right to use a *unique identifier* instead of your name in order to protect your privacy. Your educational record is privileged information under the federal Family Educational Rights and Privacy Act (FERPA), and using your name as identifier means that you opt out of this guaranteed confidentiality with respect to homework assignments and scores.