Math 618, Real Analysis III, Spring 2011

Class Time: MWF 10-10:50a.m. in 210 Deady Hall
Instructor: Dr. Marcin Bownik
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Office: 141 Campbell
Office Phone: 346-5622
Office Hours: 11-12p.m. Monday, Wednesday, and Friday, or by appointment

1. **Background and Goals.** This course introduces students to the subject of real analysis, and to a lesser extent, complex and functional analysis. Topics include: Fourier transforms, the Plancherel Theorem, Cauchy theorem for holomorphic functions, power series representation, calculus of residues, normal families, and the Weierstrass factorization theorem. The course, which is the the last of three in the sequence, covers most of the chapters 9, 10, 14, and 15 of the textbook.

2. **Exams.** There will be one midterm in-class exam on Wed. 5/4, and a final exam on Fri. 6/10, 10:15a.m.–12:15p.m.

3. **Homework.** Homework problems will be assigned every other week and be due in class on Wednesday on the material of the previous 2–3 weeks. No late homework will be accepted. Group work on homework is encouraged, but each student must individually write and turn in her/his own assignment.

4. **Grading.** The grading distribution will be as follows:
   - Homework: 40%
   - Midterm Exam: 20%
   - Final Exam: 40%