Math 618, Real Analysis III, Spring 2006

Class Time:	MWF 1-1:50p.m. in 210 Deady Hall
Instructor:	Dr. Marcin Bownik
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Office Hours:	2-3p.m. Mon. and Fri., 12-1p.m. Wed., or by appointment
Textbook:	*Real and Complex Analysis,* by W. Rudin, 3rd ed., McGraw-Hill

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 a take-home midterm exam given in the sixth week and a final take-home exam given in the last week of class.

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%