



Dr. Martin Bohner

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Mathematics 315 “Introduction to Real Analysis”, Spring 2005 (Jan 10 – May 6).

Lecture: Monday, Wednesday, and Friday (except Jan 17, Mar 18/28/30, Apr 1) in ROLLA-G4 from 2 to 2:50 in the afternoon. This class has a web site:

<http://www.umr.edu/~bohner/math315-05/math315.html>

Office Hours: Monday, Wednesday, and Friday in ROLLA-106 from 3 to 4 in the afternoon. Also by appointment. Appointments may be scheduled in person, by phone, or via e-mail.

Text: Lecture Notes will be available on the website. In addition, you may use “Principles of Mathematical Analysis” by Rudin (3rd edition), Chapters 6, 7, 8, and 11.

Description: Riemann–Stieltjes integration, sequences and series of functions, uniform approximation, the Banach Space $C(a, b)$, Lebesgue measure and integration, the space $L^p(a, b)$, Fourier series. Prerequisite: Math 309.

Homework Assignments: There will be 11 weekly homework assignments. They are available in class (and as PDF Files on the lecture’s web site). Homeworks will be collected and selected problems will be graded. Instead of collection of homeworks, there may be a quiz during class on the homework material.

Hour Exams: There will be 3 one hour exams during class. These exams will be announced at least one week in advance.

Final Exam: The final exam is comprehensive and will be on Tuesday, May 10 from 10:30 to 12:30 in the morning.

Grading Policy: Each of the eleven homework assignments is worth 50 points, each of the three hour exams 80 points, and the final exam 210 points. Hence the emphasis on the final amount of points is weighted as follows:

Homework	Hour Exams	Final
55%	24%	21%

Altogether 1000 points are available. The accumulated scores may be found on the lecture’s web site (using a certain personal password). Note that these scores as well as estimated final grades are updated weekly. If p is the final (relative) amount of points, the final (estimated) grade will be determined according to the following table (as a final grade of “D” is not allowed for a graduate student, for them the level to pass is 650):

F	D	C	B	A
$p < 600$	$600 \leq p < 700$	$700 \leq p < 800$	$800 \leq p < 900$	$p \geq 900$