Math 420
Real Analysis II
Spring, 2016

Instructor: Dr. Intermont

Office:	OU 203B
	Phone: 337-7107
	e-mail: intermon@kzoo.edu
Web Page:	http://kzoo.edu/~intermon
Hours:	Monday and Tuesday: 2:30–3:30pm
	Wednesday and Friday: 9:45-10:45am
	And by appointment

Text:

A User-Friendly Introduction to Lebesgue Measure and Integration by Nelson

Additional Resources:

Understanding Analysis by Abbott

Real Analysis by Royden

Content:

In this course we begin by studying integration. Most of our time will be concerned with the Lebesgue integral, a generalization of the common Riemann integral. This will lead us to discuss measure theory which is a generalization of the familiar idea of length. We will also explore the space of Lebesgue integrable functions with some well-studied definitions of length.

Goals:

In addition to understanding the content of this course, our larger pedagogical goals include improving our critical reading and thinking skills, as well as honing our oral presentation and proof-writing abilities.

Grades:

This is a seminar class; your contribution to our on-going class conversation will contribute 30% to your final grade. You are expected to read before (and after!) each class and to be prepared to discuss and question the text. Most classes will have two co-leaders responsible for guiding about 45 minutes of our time together.

Traditional problem sets will be collected about every two weeks and will contribute 40% to your final grade.

The final exam will contribute 30% to your final grade. This exam will have two parts. One part will be an oral exam. The other part will likely be a paper with short class presentation. Details of this will be determined during Week 8.