

Math 532 Section 001, 3 credit hours, Spring 2015

11:30-12:25 MWF COHH 2121

Instructor-- Dr. Spraker

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Office hours MW 12:30 - 1:30, 3:00 - 4:30, F 12:30 - 1:30 Other times by appointment or capture.

Welcome to real analysis. This is a required course for students who are working toward the M.S. degree in mathematics using the general option. The Prerequisite for this course is Math 431G or its equivalent. Real analysis is the basis for much of advanced mathematics. Much of the abstract foundations of probability and calculus are contained in this subject. In this course we will study the concepts of measure and integral. In fact that is the title of the required text: **Measure and Integral An introduction to Real Analysis**, by Richard Wheeden and Antoni Zygmund. We will study the first 6 chapters in this text if time permits.

In math 532 students will:

Learning Objective 1: become proficient in proof techniques used in Analysis.

Learning Objective 2: be able to work with and comprehend the concept of a measure.

Learning Objective 3: be able to list a number of important counterexamples used in Analysis.

Learning Objective 4: be able to perform the Lebesgue and Riemann-Stieltjes Integrals and prove theorems about them.

There will be three exams and a comprehensive final. The dates are listed below. In addition to this you will be assigned homework regularly which will be taken up occasionally and without prior warning. Try to do it every night. Make use of my office hours, the phone, or email if you are having difficulties. If I did not like helping students, I would do something else for a living.

Exam I: Friday Feb. 27

Exam II: Friday April 3

Exam III: Friday May 1

Final Exam: Monday May 11, 10:30

Exams other than the final may be taken early if I am notified ahead of time. Homework may be turned in early, but I do not accept late homework. If you know that you will be absent, you must contact me prior to your absence or in the case of illness prior to the next class period in order to make arrangements for making up any work.

Your grade will be determined as follows:

Homework 20%

Exams 60%

Final 20%

Student Accessibility Resource Center

In compliance with university policy, students with disabilities who require accommodations (academic adjustments and/or auxiliary aids or services) for this course must contact the Student Accessibility Resource Center in DSU 1074. Please DO NOT request accommodations directly from the instructor without a letter of accommodation from the Student Accessibility Resource Center.

Important Dates

March 20: Last day to drop classes with a W.

March 9 - 13 Spring Break