

## Intermediate Analysis

Spring 2016 Math 431-001 MWF 11:30 – 12:25 (COHH 2121)

Dr. Spraker – Office COHH 3110 – Home 732-6018 – Office 745-6220

[John.Spraker@wku.edu](mailto:John.Spraker@wku.edu) [People.wku.edu/john.spraker/home.html](http://People.wku.edu/john.spraker/home.html)

Office Hours:

MWF 10:05 – 11:30      Others by appointment or capture.  
MW 12:25 – 2:00

Welcome! 431 is intended to be a second course in abstract mathematical analysis. The prerequisite for it is Math 337 with a grade of C or better. I hope that this course will give you a glimpse of what techniques and thought processes are involved in doing mathematical research. Don't let that frighten you! Keep up! Do the proofs and homework carefully and come see me whenever you have problems. Office hours are your time not mine. The last day to withdraw or change to audit is March 18.

Learning Objectives:

A student who completes Math 431 should be able to:

1. read and construct proofs in analysis.
2. manipulate and prove results about sequences and series of functions.
3. discuss and apply topological concepts to analysis.
4. state a number of fundamental theorems in analysis.

There will be homework assigned daily, which will be taken up occasionally and without warning. Be ready. There will be three tests and a final. Your grade will be determined as follows:

Homework	20%
Test (3)	60%
Final	20%

Textbook: **Introduction to Real Analysis by Bartle and Sherbert 4<sup>th</sup> Edition, Wiley**

We will discuss topics from the first 9 chapters.

The dates of the exams are as follows.

Friday Feb. 19  
Friday Mar. 25  
Friday Apr. 22

Final (comprehensive) Thurs. May 12, 10:30-12:30

Students with disabilities: 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 (SARC) in Downing Student Union 1074. The SARC telephone number is (270) 745-5004; TTY is (270) 745-3030. Per university policy, please DO NOT request accommodations directly from the professor or instructor without a letter of accommodation from the SARC.