

**COURSE DESCRIPTION**  
**REAL ANALYSIS II**  
**MA 646-2F**  
**SPRING 2022**

DEPARTMENT OF MATHEMATICS  
UNIVERSITY OF ALABAMA AT BIRMINGHAM

**Course Instructor:** Rudi Weikard  
**Office:** UH 4032  
**Phone#:** 934-3720  
**E-mail:** weikard@uab.edu  
**Zoom:** <https://uab.zoom.us/my/rudi.weikard>  
**Office Hours:** Drop in anytime or call or e-mail for an appointment.

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**Meeting times:** TT 3:30 pm — 4:45 pm  
**Meeting location:** SL 229  
**Textbook:** No textbook required. Lecture notes will be available.

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**Important dates:**

**First day of class:** January 10  
**Spring Break:** March 14 – 20  
**Last day of class:** April 22  
**Grades available online:** May 4

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**Course content:**

- The Lebesgue-Radon-Nikodym Theorem
  - Radon Functionals on Locally Compact Hausdorff Spaces
  - Differentiation
  - Functions of Bounded Variation and Lebesgue-Stieltjes Measures
  - Additional Topics
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**Assessment procedures:** Final grades are determined by participation in class during the course.

To receive a grade of B requires a solid understanding of the concepts of measure and integral, the ability to reason through the proofs of several standard theorems, and the ability to solve many of the assigned problems.

To receive a grade of A requires a deep understanding of the concepts of measure and integral, the ability to reason through the proofs of most standard theorems, and the ability to solve most of the assigned problems.

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*Date:* January 3, 2022.