

MAT 5620, Analysis II

Wm C Bauldry

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Analysis II

MAT 5620. Analysis II/(3).F. A continuation of MAT 5610, including a rigorous development of the Riemann-Stieltjes integral, functions of several variables, and Lebesgue theory. Prerequisite: MAT 5610 (Real Analysis I) or permission of the instructor.

Our goal is a rigorous development of multivariable calculus and introductory measure theory. We'll go through chapters 9 \rightarrow 11 of our text, Witold Koszala's *A Friendly Introduction to Analysis*, 2nd ed. and *A Brief Introduction to Lebesgue Theory*, chapter 3 of WmCB's *Introduction to Real Analysis*.

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|----------|--------------------------|-----------|---------|
| Grading: | Projects / Presentations | \approx | 100 pt. |
| | Homework & Proofs | \approx | 100 pt. |
| | Midterm Exam | \approx | 100 pt. |
| | Final Exam | \approx | 100 pt. |
| | Total | \approx | 400 pt. |

Analysis II

Contact Information

Professor: Dr Wm C Bauldry

Office: Walker 237

Office Hours: To be announced and/or by appointment.
Check my [online calendar](#).

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IM: GoogleTalk to *DrWmCB (electronic office hours)*

Semester Projects

- Individual Project

Glossary: Build a glossary of the terms we use in analysis. Start with basic items such as 'open set'.

- Class Projects

Bibliography: Generate an annotated list of references for

- real analysis and advanced calculus,
- calculus and teaching calculus. (*sample*)

Concept Map: Create a concept map of analysis. Look at the Derivative Map for a sample. There is free software at the Institute for Human and Machine Cognition (IHMC) site.