# MAT 5620, Analysis II

Wm C Bauldry

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Fall, 2011

# 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.

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Our goal is a rigorous development of multivariable calculus and introductory measure theory. We'll go through chapters $9 \to 11$ of our text, Witold Kosmala'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. |

## 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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278-9355 *my Voice Mail* (*via Google*)
262-3050 *Dept of Math Sciences*

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

# Semester Projects

- Individual Project

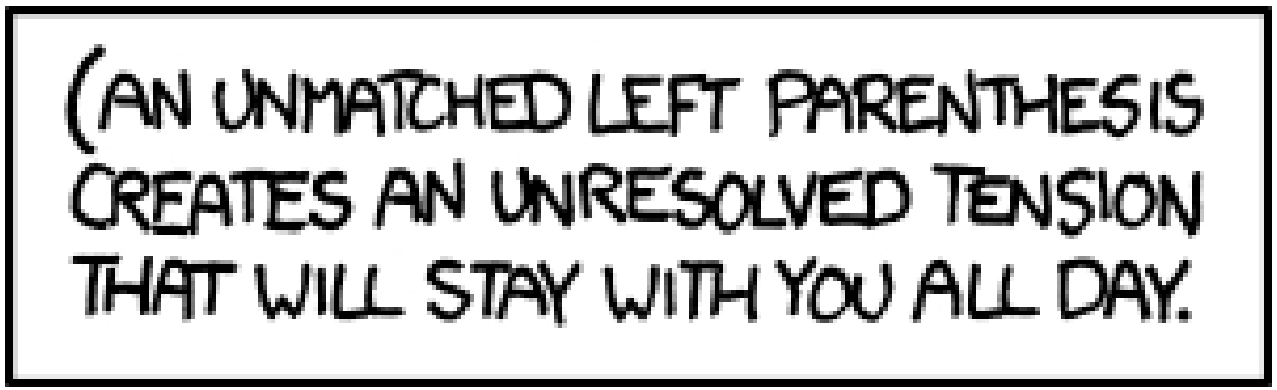
  Glossary: Build a glossary of the terms we use in analysis. Start with basic items such as ‘open set’.

- 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.

# The End


(AN UNMATCHED LEFT PARENTHESIS
CREATES AN UNRESOLVED TENSION
THAT WILL STAY WITH YOU ALL DAY.