Math 4032, Section 1
Advanced Calculus II

Textbook: Notes by Prof. Len Richardson *Advanced Calculus: Real Analysis with Norms*. Those notes are available bound at low cost from the *Serve 'U' Center*, which is located about two blocks outside the LSU South Gades, at 4410 Highland Road next door to CC's Coffee House.
Time: 11:40-12:30, Monday, Wednesday and Friday in Lockett 235)
Instructor: Gestur Olafsson
Office: 322 Lockett
Office Hours: M-W 1:40–2:30 You can also contact me by e-mail, olafsson@math.lsu.edu, or in class for other appointments.
Phone: 225-578-1608
e-mail: olafsson@math.lsu.edu **or** olafsson@lsu.edu
web-page: www.math.lsu.edu/∼olafsson. This syllabus, list of problems, test dates, and solutions to tests, quizzes and other information will be available on this web-page.

SYLLABUS

We will do Section 3.4, *Cauchy-Schwarz Inequality* and then Chapters 4, 5 and as much as possible of Chapter 6. This includes material on:

- The derivative, including uniform convergence.
- The mean value theorem and Cauchy's generalized mean value Theorem.
- Taylor's Theorem.
- Absolute and uniform convergence of series.
- Completeness of sequence spaces.
- Dual spaces.
- Real analytic functions.
- Functions of bounded variation.
- The Stieltjes integral.
- The dual of $C[a, b]$.

The following days are off:

- Mardy Gras holidays Feb. 27 – March 1.
- Spring break, April 10 – 16.

GRADINGS

- There will be **three** tests in class, each counting **100** points:
  - ▶ Monday, March 6;
  - ▶ Monday, April 3;
  - ▶ Friday, Apr0il 28
- 7 graded homework assignments, each counting **30** points. Only the 6 best will be counted towards the final grade.
- A final exam, counting **200** points, will take place:
  - ▶ **Lockett 235, Monday, May. 8, 10:00-Noon**.

Points

Tests during the semester	300
Homework	180
Final	200
Total	680

Final Grades

A $\geq$ 612, B $\geq$ 544, C $\geq$ 476, D$\geq$408. F $<$330