

## Math 826 - Mathematical Analysis II

2nd Semester '07-'08

### Policy Handout

**Instructor** Professor Allan Donsig  
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Office Hours: 10:30–11:30 Monday, Wednesday; 2:30–3:30 Friday

**FINAL EXAM** Tuesday, May 6, 1 pm—3 pm

You are welcome to drop by outside of office hours although I may be busy (in which case we can make an appointment), or out of the office (leave a message, preferably using email).

**Textbook** Real Analysis with Real Applications, K. Davidson & A. Donsig, Prentice-Hall, ISBN:0-13-041647-9.

**Additional References** The first three of these books are on 3-day reserve in the Math library.

A Companion to Analysis : A Second First and First Second Course in Analysis, T.W. Körner, American Mathematical Society, ISBN: 0-8218-3447-9.

Principles of Mathematical Analysis, W. Rudin, 3rd ed., McGraw-Hill, ISBN: 0-07-054235-0.

Introduction to Analysis, W. Wade, 2nd ed., Prentice Hall, ISBN: 0-13-014409-6.

Elementary Real Analysis, B. Thomson, J. Bruckner, A. Bruckner, Prentice-Hall, ISBN: 0-13-019075-6.

A pdf file for the last book is freely available online at <http://classicalrealanalysis.com>

**Course Summary** Together with Math 826, these courses are a careful introduction to analysis, one of the major divisions of mathematics. Analysis, broadly speaking, studies limiting processes. Besides providing a rigorous foundation for calculus, analysis is used in many other parts of mathematics, both pure and applied, besides being studied for its own interest.

The major themes of 825/826 are various kinds of convergence, compactness, integrals and derivatives, and cardinality. If time permits, we'll apply this material to approximating functions by polynomials and by trigonometric functions.

**Expectations** Performance at a high level is expected. At a minimum, this means knowing the material from the prerequisite courses, reading the textbook before lectures, taking notes during lectures, and then doing the homework and reviewing your notes afterward.

**Grading** I expect  $n$  and  $m$  to be between 10 and 15.

comprehensive final exam	100	100
two term tests	100 each	200
$n$ weekly assignments	$180/n$ each	180
$m$ weekly quizzes	$20/m$ each	20
total		500

**Grade Scale** I may lower the following cutoffs.

A+	463	B+	405	C+	355	D+	305
A	425	B	375	C	325	D	275
A-	415	B-	365	C-	315	D-	265

**Tests** There will be two term tests, to be scheduled for two hours outside of class, in mid-February and in mid-April. Makeup tests will be given only for University sanctioned reasons and require appropriate documentation. The final will be comprehensive, although there will be a slightly higher emphasis on the material since the second test. Calculators are not allowed on quizzes or exams.

**Assignments** Assignments are *vital* to understanding the material of the course. There will be weekly assignments of 4 to 6 questions, due at the start of class, typically on Wednesday. Late assignments are not accepted, except for extreme personal emergencies.

**Quizzes** Quizzes will be take 2-5 minutes at the start of class on most Fridays. They will ask for either a definition or the statement of a theorem. They are intended to be easy points for those who review their notes and keep up with the material. There are no quizzes on the weeks when we have exams.

**Academic Dishonesty** Academic dishonesty includes cheating on any test, plagiarism, fabricating an otherwise justifiable excuse to avoid or delay timely submission of academic work, and helping or attempting to help another student commit academic dishonesty. For a comprehensive list, see Section 4.2 of the Student Code of Conduct. In particular, plagiarism includes three acts: “(1) failing to cite quotations and borrowed ideas, (2) failing to enclose borrowed language in quotation marks, and (3) failing to put summaries and paraphrases in your own words” (Hacker, A Writer’s Reference, 4th Edition, p. 83).

I can, and will, lower grades, up to giving an F in the course, of students found to have committed an act of academic dishonesty. As this is a graduate course, I will view academic dishonesty in this course particularly seriously. Both the determination of academic dishonesty and the penalty can be appealed (again, see Section 4.2 of the Student Code of Conduct).

**Department Grading Appeals Policy** The Department of Mathematics does not tolerate discrimination or harassment on the basis of race, gender, religion, or sexual orientation. If you believe you have been subject to such discrimination or harassment, in this or any other math course, please contact the department. If, for this or any other reason, you believe your grade was assigned incorrectly or capriciously, then appeals may be made to (in order) the instructor, the department chair, the department grading appeals committee, the college grading appeals committee, and the university grading appeals committee.