Math 4567
Applied Fourier Analysis, Spring 2015

SYLLABUS

Time and Place:	1:25 pm - 2:15 pm MWF – Vincent Hall 1
Text:	J.W. Brown, R.V. Churchill. Fourier Series and Boundary Value Problems. **8th Edition**.
Instructor:	Sergey G. Bobkov
Office:	228 VinH (tel: 625-1840, email: bobkov@math.umn.edu)
Office hours:	11:15 am - 12:05 pm F and by appointment

4567. **Applied Fourier Analysis**.
Orthonormal functions, best approximation in the mean. Fourier series, convergence pointwise and in the mean. Applications to boundary value problems. Sturm-Liouville equations, eigenfunctions. Fourier transform and its applications.

WEEK	DATES	MATERIAL (preliminary distribution)
1	01-21 to 01-23	Review of Lebesgue integration
2	01-26 to 01-30	Chapter 7
3	02-02 to 02-06	Chapter 1
4	02-09 to 02-13	Chapter 2
5	02-16 to 02-20	Chapter 2
6	02-23 to 02-27	Chapter 3
7	03-02 to 03-06	Chapter 3
8	03-09 to 03-13	Exam 1; Chapter 4
	03-16 to 03-20	(Spring break)
9	03-23 to 03-25	Chapter 5
10	03-30 to 04-03	Chapter 8
11	04-06 to 04-10	Exam 2; Chapter 8
12	04-13 to 04-17	Chapter 8
13	04-20 to 04-24	Chapter 6
14	04-27 to 05-01	Chapter 6
15	05-04 to 05-08	Chapter 6; Exam 3

Homeworks:	You will have 5 homeworks due on Mondays: February 9, March 2, 30, April 20 and May 4 (for every homework you have at least 2 weeks)
Midterm exams:	Monday, March 9, 2015 Friday, April 10, 2015 Friday, May 8, 2015
Composition of grade:	Every exam: 25% of total grade Homeworks: 25% of total grade