Math 4567
Applied Fourier Analysis, Fall 2011

SYLLABUS

Time and Place:	12:20 pm - 1:10 pm MWF – STSS 117 (222 Pleasant Street SE)
Text:	J.W. Brown, R.V. Churchill. Fourier Series and Boundary Value Problems. 2007, **7th Edition**.
Instructor:	Sergey G. Bobkov
Office:	228 VinH (tel: 625-1840, email: bobkov@math.umn.edu)
Office hours:	11:15 am - 12:05 pm MF

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.	09-07 to 09-09	Review of Lebesgue integration
2.	09-12 to 09-16	Chapter 7
3.	09-19 to 09-23	Chapter 1
4.	09-26 to 09-30	Chapter 2
5.	10-03 to 10-07	Chapter 2; Midterm exam 1
6.	10-10 to 10-14	Chapter 3
7.	10-17 to 10-21	Chapter 3
8.	10-24 to 10-28	Chapter 4
9.	10-31 to 11-04	Chapter 5; Midterm exam 2
10.	11-07 to 11-11	Chapter 8
11.	11-14 to 11-18	Chapter 8
12.	11-21 to 11-23	Chapter 8
13.	11-28 to 12-02	Chapter 6; Midterm exam 3
14.	12-05 to 12-09	Chapter 6
15.	12-12 to 12-14	Chapter 6; Final review

Homeworks:	You will have 5 homeworks due on Mondays September 26, October 17, 31, November 14 and 30 (for every homework you have at least 2 weeks)
Midterm exams:	Wednesday, October 5, 2011
	Wednesday, November 2, 2011
	Wednesday, November 30, 2011
Final exam:	Wednesday, December 21, 2011, 1:30 pm - 3:30 pm
Composition of grade:	Midterm exams: 10% + 20% + 20% of total grade
	Homeworks: 20%, Final exam: 30% of total grade