Math 4567
Applied Fourier Analysis, Spring 2019

SYLLABUS

Time and Place:	1:25 pm - 2:15 pm MWF – Vincent Hall 311
Text:	J.W. Brown, R.V. Churchill. Fourier Series and Boundary Value Problems. **8th Edition**.
Instructor:	Sergey G. Bobkov
Office:	228 VinH (email: bobkov@math.umn.edu)
Office hours:	12:20 pm - 1:10 pm F

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	01-23 to 01-25	Review of Lebesgue integration
2	01-28 to 02-01	Chapter 7
3	02-04 to 02-08	Chapter 1
4	02-11 to 02-15	Chapter 2; Test 1
5	02-18 to 02-21	Chapter 2
6	02-25 to 03-01	Chapter 3
7	03-04 to 03-08	Chapter 3
8	03-11 to 03-15	Chapter 4
	03-18 to 03-22	(Spring break)
9	03-25 to 03-29	Chapter 5; Test 2
10	04-01 to 04-05	Chapter 8
11	04-08 to 04-12	Chapter 8
12	04-15 to 04-19	Chapter 8
13	04-22 to 04-26	Chapter 6
14	04-29 to 05-03	Chapter 6
15	05-06	Test 3

Homeworks:	You will have 5 homeworks due on Wednesdays: February 13, March 6, 27, April 10, May 1
Tests:	Friday, February 15, 2019 Friday, March 29, 2019 Monday, May 6, 2019
Composition of grade:	Every test: 25% of total grade Homeworks: 25% of total grade