Welcome to

MATH 4112 - Fall 2012

Introduction to Functional Analysis

INSTRUCTOR: Dr. Monica Ilie

- **Contact info**: RB 2019 ⋆ 766-7224 ⋆ *milie@lakeheadu.ca*
- **Office hours**: Tuesday 10:00-11:00, Wednesday 1:30-2:30

COURSE INFORMATION:

- **Class time**: Tu Th 2:30-3:45, RB 2026
- **Textbook**: *Introductory functional analysis with applications* by Erwin Kreyszig, publisher John Wiley and Sons.
- **Additional resources**: *Linear functional analysis* by Rynne, Bryan; Youngson, Martin, publisher Springer 2008. Available free online:
  http://books1.scholarsportal.info/viewdoc.html?id=/ebooks/ebooks2/springer
  /2011-04-28/3/9781848000056
- **Grading** Your grade will de determined by assignments, midterm and a final exam. The weights of each of these are as follows:

Homework	Midterm	Final Exam
20%	40%	40 %
	Tu, October 23	TBA

- **Course webpage:**
  http://flash.lakeheadu.ca/∼ milie/Math4112.html
- **Important dates:**
  Friday, September 21, 2012: final date for registration
  Friday, November 2, 2012: last date for course withdrawal without academic penalty
  December 6-17, 2012: Examinations

SYLLABUS This is an introductory course in functional analysis. This area of mathematics provides a unifying framework for many areas: fourier analysis, differential equations, complex analysis, measure theory, stochastic theory etc. Its core is the study of normed spaces, together with linear functionals and operators on them. We will aim to cover, in whole or in part, Chapters 1, 2, 3, 4, not necessarily in this order.

COURSE POLICIES LATE assignments will NOT be accepted. If you miss an exam with a university approved excuse, the weight of that exam will be *transferred* to the *next exam.* There will be no make-up exams!