

Mathematics 5290 - Topics in Analysis
Probability theory and related topics

Fall 2008

Instructor. Hakima Bessaih, Ross Hall 210, bessaih@uwo.edu.

Office Hours. MWF 11.00-12.00am, T 2:00-3:00pm and by appointment.

Class time & room. MWF 12:00-12:50pm in RH 247.

Reference material.

1. Probability Essentials, Springer 2nd edition 2004 by Jean Jacod and Philip Protter.
2. Probability, SIAM Classics in Applied Mathematics 1992, by Leo Breiman.
3. Markov Chains, Cambridge Series in Statistical and Probabilistic Mathematics 1997, by R. Morris.
4. Probability with Martingales, Cambridge; Cambridge, UK 1991 by David Williams.
5. Probability, Springer-Verlag Graduate Texts in Mathematics, by A.N. Shiriyayev

Course Description. The goal of this course is to get more familiar with some probability concepts; independence, conditional probability, characteristic functions, weak convergence. Markov chains are the simplest mathematical models for random phenomena evolving in time. In this course, we will introduce to the discrete-time Markov chains and some of their properties.

Prerequisites. Mathematics 5200.

Grading Policy. The course grade will be based on homework assignments. There will be approximately 8 assignments in this course.

Grading scheme for the final grades: Grade A: 90-100, Grade B: 80-89, Grade C: 70-79, Grade D: 60-69, Grade F: <60.

Disability statement: If you have a physical, learning, or psychological disability and require accommodations, please let me know as soon as possible. You will need to register with, and provide documentation of your disability to, University Disability Support Services (UDSS) in SEO, room 330 Knight Hall, 766-6189, TTY: 766-3073.

The information in this syllabus is subject to change. If there are changes, they will be announced repeatedly in class.