STOCHASTIC PROCESSES 098413

Instructor Haya Kaspi.
Grade will be based on homework assignments (50%) and a final in class exam (50%).

This is a pre measure theory graduate course in stochastic processes. It is meant for students with some background in stochastic processes (e.g. Stochastic Models in OR or Stochastic Signals).

Topics covered

1. Some probability Theory–mainly conditional distributions and expectation. (first week)
2. Martingales in Discrete Time. (Lectures 2-6).
3. Markov Chains in Discrete and Continuous Time. (Lectures 7-9)
4. Regenerative Processes and Renewal Theory (Lectures 10-12).
5. Brownian Motion (construction and some basic sample path properties)

The following are books that I will use for various topics of this course.