# 36-703: Intermediate Probability, Spring 2008

http://www.stat.cmu.edu/~vventura

**Class schedule :** TR 12-1:20 in Wean Hall 6423 **Instructor :** Valérie Ventura, Baker Hall 229E, vventura@stat.cmu.edu (x8-4249) OH : Tuesdays 2:30pm to 4pm

**TA** : Daniel Heinz, dheinz@stat.cmu.edu OH : Thursdays 3-4pm and by appointment in

## Objective

The goals of this course are primarily (i) to prepare you mathematically for work in advanced probability, and (ii) to study in depth a range of important stochastic processes such as Markov chains.

By the end of this course you will be able to (i) prove rigorously a variety of important probabilistic results, (ii) analyze models based on standard stochastic processes, including Markov Processes, Martingales, and diffusions (if time permits).

#### **Textbook**

Probability and Random Processes, 3rd Edition, by Grimmett, GR and Stirzaker, DR

### **Course Grading**

30%: best 2 out of 3 mid-term exams (15% each), Feb 7, Mar 6, Apr 10

- 25% : final exam
- 20%: Homework
- 15%: Reading component of the homework
- 10%: Class participation

### <u>Homework</u>

The homework will have two components: exercises to practice the material, and reading assignments. Exercises will be assigned every Friday, and will be due the following Friday by 3pm. Reading assignments will also be assigned on Fridays, and will be due the following Monday by midnight (by email).

### <u>Exams</u>

All exams are closed book and closed notes. They might contain HW problems, class examples or proofs, and examples treated in the book.