ADVANCED PROBABILITY THEORY 1

MATH 587 – Fall 2012

Professor: Louigi Addario-Berry, louigi@math.mcgill.ca, Burnside 1219
Course schedule: Tuesday, Thursday, 2:35-3:55, Burnside Hall 1205.
Office hours: 10:00-11:30, Tuesday and Thursday, or by appointment.

TEXTBOOK

David Williams, Probability with Martingales.

PLANNED TOPICS

Chapters 0 through 10 of the course text, plus the appendices to Chapters 1,3,5, and 9. Additional topics, should time permit.

GRADING SCHEME

Your grade will be calculated according to the more favourable of the following two options:
(A) Assignments 10%, midterm 30%, final 60%
(B) Assignments 10%, final 90%

There will be 5 assignments. You may fail to hand in any one assignment without justification or penalty. Missing additional assignments without a medical note will result in a grade of zero for the assignment. The midterm will be held in class on October 18. There will be no supplemental midterm, any student missing the midterm will be graded according to the 10% assignments, 90% final scheme.

PREREQUISITES.

The only formal prerequisite is MATH 356. Following the chain of prerequisites, this means you also should have taken MATH 242, and either MATH 243 or MATH 255 (two versions of Analysis 2). In practice, you should also have seen a portion of the material from MATH 354 (Analysis 3). You will be at a disadvantage if you don’t already know the basics about metric spaces, convergence, completeness and the like. If you want to brush up on this material Sam Drury’s MATH 354 notes are a good place to look (roughly, chapters 1, 2, and 4.1,4.2,4.5). These notes are available at http://www.math.mcgill.ca/drury/notes354.pdf

ADDITIONAL MANDATORY INFORMATION.

1. In accord with McGill University’s Charter of Students’ Rights, students in this course have the right to submit in English or in French any written work that is to be graded.

2. McGill University values academic integrity. Therefore all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of Student Conduct and Disciplinary Procedures (see www.mcgill.ca/students/srr/honest/ ) for more information).

3. In the event of extraordinary circumstances beyond the University’s control, the content and/or evaluation scheme in this course is subject to change.