STAT 351 - Probability I
Fall 2008

Instructor: Tamás Linder - Jeffery Hall 401
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Course Web Site: http://www.mast.queensu.ca/~stat351
All assignments and important announcements will be posted here.

Lectures: Slot 1: Monday 8:30, Tuesday 10:30, Thursday 9:30, Jeffery 102

Tutorials: Tuesday 2:30 pm, Jeffery 102
Recommended practice problems will be posted on the website. Some of these will be solved during the tutorial sessions. Please print out the problem sheet before coming to the tutorial.

Instructor’s Office Hours: Monday 9:45-11:00 am, or by appointment

TA Office Hours: Thursday 4:30 – 5:30 pm, Jeffery 222


Assignments: There will be 10 homework assignments, due on Fridays before 12 noon in my mailbox (Jeff. 401). Late homeworks will NOT be accepted. Homework assignments and solutions will be posted on the class website; no paper copies will be handed out.

Midterm Test Will be held on Thursday, October 23. Time and place TBA.

Evaluation: Each homework assignment will be worth 2%. The lowest homework mark will be dropped, meaning that only 9 homeworks, accounting for a total of 18%, will count towards your final course mark.
The final course mark will be the larger of the following two scores:
Score A: Homeworks 18%, midterm 25%, final exam 57%
Score B: Homeworks 18%, final exam 82%

Pre/Corequisites: MATH 221 or 280, or demonstrable familiarity with vector calculus.

Course Outline

- Basic concepts of probability theory: axioms of probability; counting; conditional probability; law of total probability and Bayes’ rule; independence of events (Sections 1.1-1.4, 1.6, 1.7, 2.1-2.4, 3.1-3.5 of text).
- Discrete Random Variables: random variables; distribution functions; expectation, variance, and moments of a discrete random variable; uniform, Bernoulli, binomial, Poisson, and geometric distributions (Sections 4.1-4.6, 5.1-5.3 of text).
- Continuous Random Variables: probability density functions; functions of random variables; expectation, variance, and moments of a continuous random variable; uniform, normal, and exponential random variables (Sections 6.1-6.3, 7.1-7.3 of text).
- Multiple Random Variables: pairs of random variables; independent random variables; conditional distribution and expectation; multivariate distributions (Sections 8.1-8.4 of text).