

# STA347 - Probability I

University of Toronto Summer 2016

Lectures: Tuesday, Thursday 6-9pm at BA1130  
Instructor: Gun Ho Jang  
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Web page: <http://www.utstat.toronto.edu/ghjang/teaching/sta347.php>  
Office: SS6025  
Office Hours: Tuesday, Thursday 4:30-5:30pm or by appointments.

## Course Description

This course provides a thorough overview of probability theory from a least-measure theoretic point of view which includes the convergence theorems. Topics covered are random variables and random vectors, independence, conditional probability and conditional expectation and their applications, and various types of convergence theorems. As time permits simple stochastic processes such as Markov chains, Poisson and branching processes will be introduced.

## Prerequisite

Multivariate calculus similar to STA247/STA255/STA257/MAT235/MAT237 is mandatory. Analysis equivalent to MAT257 is strongly recommended;

## Textbook

M. DeGroot and M. Schervish (2010). Probability and Statistics. Pearson. 4th ed.

## Reference

M. Evans and J. Rosenthal (2010). Probability and Statistics. Freeman, 2nd ed.  
G. Grimmett and D. Stirzaker (2001). Probability and Random Processes, Oxford, 3rd edition.  
A.N. Kolmogorov (1956). Foundations of the Theory of Probability. 2nd ed.  
S. Ross (2012). A First Course in Probability. Pearson, 9th ed.  
P. Whittle (2000). Probability via Expectation. Springer, 4th ed.

## Evaluation

The grading scheme is as follows:

	Proportion	date, time and location
Homework	25%	2 - 3 sets
Mid-term I	25%	July 12 (2 hours)
Mid-term II	25%	July 28 (2 hours)
Final exam	25%	TBA (2 hours)

## Notes

\* No makeup test will be given for missed mid-term tests. If you miss a mid-term test and provide a valid medical record to the instructor within a week, your mark on the final exam will be substituted for the missing test.

\* Mid-term tests and final exam will be closed book with no aids allowed except a non-programmable calculator. Formulae sheets will be provided if necessary.