STA347 - Probability I

University of Toronto Fall 2019 - L5101

Lectures:	Mondays 6-9pm at MS2158
Instructor:	Gun Ho Jang
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Material:	quercos
Office:	PHS388
Office Hours:	Mondays 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 renewal and Poisson processes will be introduced.

Prerequisite
STA247H1/STA255H1(70%)/STA237H1(70%)/STA257H1/ECO227Y1, MAT223H1/MAT240H1, MAT235Y1/MAT237Y1/MAT257Y1 (Note: STA257H1, MAT223H1/MAT240H1, MAT237Y1/MAT257Y1 are very strongly recommended)

Textbook
H. Kobayashi, B. Mark and W. Turin (2011). Probability, Random processes, and Statsitical analysis. Cambridge University Press.

Reference
J. Blizstein and J. Hwang (2019). Introduction to Probability. Chapman and Hall, 2nd edition.
M. DeGroot and M. Schervish (2010). Probability and Statistics. Pearson. 4th ed.
M. Evans and J. Rosenthal (2010). Probability and Statistics. Freeman, 2nd ed.
W. Feller (1968). An Introduction to Probability Theory and Its Applications, V. 1, 3rd 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.
J. Rice (2006). Mathemadical Statistics and Data Analysis. Duxbury, 3rd ed.
S. Ross (2010). A First Course in Probability. Pearson, 8th ed.
S. Ross (2014). Introduction to Probability Models. Academic Press, 11th ed.
H. Tijms (2012). Understanding Probability. Cambridge University Press, 3rd edition.
P. Whittle (2000). Probability via Expectation. Springer, 4th ed.

Evaluation
The grading scheme is as follows:

	Proportion	date, time and location
Homework	30%	3-6 sets
Mid-term	35%	Oct 7 (2 hours)
Final exam	35%	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.

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Academic integrity is essential to the pursuit of learning and scholarship in a university, and to ensuring that a degree from the University of Toronto is a strong signal of each students individual academic achievement. As a result, the University treats cases of cheating and plagiarism very seriously. The University of Torontos Code of Behaviour on Academic Matters (www.governingcouncil.utoronto.ca/policies/behaveac.htm) outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences. Potential offences include, but are not limited to:

On tests and exams:
1. Using or possessing unauthorized aids.
2. Looking at someone elses answers during an exam or test.
3. Misrepresenting your identity.

On assignments:
1. Using someone else's ideas or words without appropriate acknowledgement.
2. Submitting your own work in more than one course without the permission of the instructor.
3. Making up sources or facts.
4. Obtaining or providing unauthorized assistance on any assignment (this includes collaborating with others on assignments that are supposed to be completed individually).

All suspected cases of academic dishonesty will be investigated following procedures outlined in the Code of Behaviour on Academic Matters. If you have questions or concerns about what constitutes appropriate academic behaviour or appropriate research and citation methods, you are expected to seek out additional information on academic integrity from your instructor or from other institutional resources (see www.utoronto.ca/academicintegrity/resourcesforstudents.html).

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Accessibility Needs
The University of Toronto is committed to accessibility. If you require accommodations for a disability, or have any accessibility concerns about the course, the classroom or course materials, please contact Accessibility Services as soon as possible.