STA347 - Probability I
University of Toronto Fall 2020

Synchronous:	Mondays (L5101/L2501), Wednesday (L5201) 6-8pm
Instructor:	Gun Ho Jang
e-mail:	`gunho@utstat.toronto.edu` Put 'STA347' in subjects
Material:	asynchronous material will be posted on quercos

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. Pishro-Nik (2014). Introduction to Probability, Statistics and Random Processes. Kappa Research.

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.

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

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%	4 sets (asynchronous)
Quizzes	50%	9 times (synchronous)
Final Exam	20%	TBA

∗ Quizzes are 30 minutes long and schedule 7:15-8:00pm period every synchronous time except the weeks of Sep 14, 21, Oct 12, Nov 9

∗ The planned due dates of homeworks are Oct 13, Oct 27, Nov 17, Dec 1

Notes

∗ Evaluation scheme could be updated by class vote. All evaluation materials need to be submitted online in format of PDF, JPG, PNG, or TIFF.

∗ Evaluations are open to notes, books, and online materials. However, any parts without detailed description will not be take into account.

∗ Among 9 quizzes, the top 8 will be taken into account with equal weights

∗ There will be no make-up for missed synchronous evaluations. Up to two missed synchronous evaluations will be taken into account for weight shift if valid records are provided. If more than two synchronous evaluations were missed, evaluations will be marked as zero except two evaluations with highest weights. There will be limited exceptions like unavoidable incidents which must be be discussed before evaluations.

Academic Integrity

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).

Copyright

If a student wishes to copy or reproduce lecture presentations, course notes or other similar materials provided by instructors, he or she must obtain the instructor's written consent beforehand. Otherwise all such reproduction is an infringement of copyright and is absolutely prohibited.

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.