

Department of Mathematics and Statistics
McGill University

MATH 323 Probability Theory

MATH-323 Probability Theory (3 credits; Prerequisites: MATH-141 or equivalent). Sample spaces, events, probability and conditional probability, independence; discrete and continuous random variables, expectation, moment generating functions, special probability distributions including the binomial, Poisson, hypergeometric, multinomial, uniform, exponential, gamma, beta, and normal distributions; multivariate distributions; covariance and conditional expectation, Chebychev's theorem, law of large numbers, ; functions of random variables; the central limit theorem.

Textbook: Wackerly, Mendenhall, and Sheaffer. *Mathematical Statistics with Applications, 7th Ed.*, Duxbury. We will be covering chapters 2 to 6 (except sections 3.10, 4.11, 5.10, 6.7) and sections 7.3 and 7.5. Note: most assignment problems will be chosen from the 7th edition.

	Formula I	Formula II
Marking Scheme:		
Biweekly assignments:	10%	10%
Midterm (one hour):	20%	
Final Exam (three hours):	70%	90%

Your final mark for the course will be the greater of the marks computed from these two formulas. Those students who do not write the midterm will be marked according to formula II. If needed, there will be a supplemental examination.

Midterm: Will be held in class on TBA.

Assignments: Assignments must be submitted by 4:45 p.m. on the due date, after which they will not be accepted. They may be handed in at the end of class, or deposited in the slot by the Math Office on the tenth floor of Burnside Hall. In the latter case, make sure you write the course number MATH 323 and instructor's name prominently on the front of your assignment (as well as your own name and student number, of course).

Markers: TBA

Office Hours: TBA. The professor cannot act as a tutor, nor will he help with solutions to assignment problems.

The last five minutes of each class will be devoted to questions.

W. J. Anderson
Burnside Hall 1245

Statement on Academic Integrity: 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 <http://www.mcgill.ca/integrity> for more information).

L'université McGill attache une haute importance à l'honnêteté académique. Il incombe par conséquent à tous les étudiants de comprendre ce que l'on entend par tricherie, plagiat et autres infractions académiques, ainsi que les conséquences que peuvent avoir de telles actions, selon le Code de conduite de l'étudiant et des procédures disciplinaires (pour de plus amples renseignements, veuillez consulter le site <http://www.mcgill.ca/integrity>).