

STAT 3050
Introduction to Probability Theory and Its Applications
WINTER 2014

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Office Hours: Monday and Friday 11:30 am – 1 pm, or by appointment

Prerequisites: STAT 3400 or the former STAT 3500 (005.350) (with a grade of C or better); and MATH 2720 or MATH 2721 (136.272, 136.270) (with a grade of C or better); and MATH 2730 or MATH 2731 (136.273, 136.271) (with a grade of C or better).

Reference Book: Ross, S.M. (2010), *Introduction to Probability Models*, 10th ed., Elsevier.

Lectures: Monday, Wednesday and Friday 10:30 -- 11:20 am in 115 Armes

- attendance is mandatory
- above reference book serves only as a general basis for the course material
- lecture notes presented in class constitute a self-contained source of the course material
- some problems will be solved in class, and some will be assigned for you to practice (no credit homework)

Tests: There will be three 50-minute closed book tests that will be held during the lecture hours. They will take place every four weeks or so. The approximate date of the first test is February 4, 2015. The exact dates and locations for each of the tests will be announced in advance in class. The test problems will strongly be related to those that are solved in class and also those that are on your homework.

note: no makeup, early or delayed tests in this course

Evaluation: Final grade is based on:
Term Work (50%): 3 term tests
Final Exam (50%): two-hour closed book exam based on the whole term

Course Outline: Review of Conditional Probability and Conditional Expectation, Markov Chains, Poisson Processes, Renewal Theory, Brownian Motion and Related Processes, Miscellaneous Topics.

note: the above is only an approximate outline. It is your responsibility to keep up with what is being done in class and with any changes announced in class.

Voluntary Withdrawal: The voluntary withdrawal deadline is March 19, 2015.

Academic Dishonesty: It is important that you understand what constitutes academic dishonesty and that you are familiar with the very serious consequences. Links to resources that describe academic dishonesty (including plagiarism, cheating, inappropriate collaboration and examination impersonation) can be found at:

<http://www.umanitoba.ca/faculties/science/undergrad/resources/webdisciplinedocuments.html>

or through the Faculty of Science home page at:

<http://www.umanitoba.ca/faculties/science>

Typical penalties imposed within the Faculty of Science for academic dishonesty are also described.

Registration Advisory: *Important Note from the Dean of Science:* It is your responsibility to ensure that you are entitled to be registered in this course. This means that you have:

- the appropriate prerequisites, as noted in the calendar description, or have permission from the instructor to waive these prerequisites;
- not previously taken, or are concurrently registered in, this course and another that has been identified as “not to be held with” in the course description. For example, STAT 1000 cannot be held for credit with STAT 2220.

The registration system may have allowed you to register in this course, but it is your responsibility to check. If you are not entitled to be in this course, you will be withdrawn, or the course may not be used in your degree program. There will be no fee adjustment. This is not appealable. Please be sure to read the course description for this and every course in which you are registered.

Pandemic Advisory: Should major disruptions to university activities occur as a result of a pandemic, the course content, evaluation, and other provisions of this document may be adjusted as the circumstances warrant.



IN THE CASE OF A FIRE ALARM:

- REMAIN CALM
- IF IT IS SAFE, EVACUATE THE CLASSROOM OR LAB
- GO TO THE CLOSEST FIRE EXIT
- DO NOT USE THE ELEVATORS
IF YOU NEED ASSISTANCE TO EVACUATE THE BUILDING,
INFORM THE INSTRUCTOR **NOW**
- IF YOU NEED TO REPORT AN INCIDENT OR A PERSON LEFT
BEHIND DURING A BUILDING EVACUATION, CALL
SECURITY SERVICES **204-474-9341**
- **DO NOT REENTER THE BUILDING**
UNTIL THE “ALL CLEAR” IS DECLARED BY A FIRE WARDEN,
SECURITY SERVICES OR THE FIRE DEPARTMENT