STAT 2400 INTRODUCTION TO PROBABILITY WINTER 2012

Instructor: Dr. Yuliya V. Martsynyuk

Office: 331 Machray Hall Phone: (204) 480-1074

E-mail: yuliya martsynyuk@umanitoba.ca

Office Hours: Monday and Friday 12:30 pm - 2:00 pm, or by appointment

Prerequisites: STAT 1000 or STAT 1001; and one of MATH 1700, MATH 1701, or MATH 1690 (all with a grade of C or better). This course is not available to any student who has previously obtained credit for STAT 3500.

Text: Weiss, N.A. (2006), *A Course in Probability*, Pearson Ed. (Addison-Wesley). **note:** reserved copy of the text is available in the Science Library

Lectures: Monday, Wednesday and Friday 9:30 am -- 10:20 am in 315 Buller Building

- attendance is mandatory
- textbook will be followed in chronological order, with some topics abbreviated or omitted
- selected problems from the text will be solved in class, and some will be assigned for you to practice (no credit homework)

Labs: Wednesday 2:30 pm -- 3:55 pm in 315 Buller Building

- lab demonstrator: Rojiar Haddadian, umhaddar@cc.umanitoba.ca
- attendance is mandatory
- the first lab is on January 11, 2012
- selected problems from the textbook will be solved

Tests: There will be four 50-minute closed book tests that will be held either during the lab or lecture hours. They will take place every three weeks or so, starting on around February 1, 2012 (approximate date of the first test). Exact dates for each of the tests will be announced in advance in class. An approximate breakdown of the text material covered by each of the four tests is as follows: test 1-Chapters 1 and 2, test 2-Chapters 3 and 4, test 3-Chapter 5 and 6, and test 4-Chapters 7 and 8. The test problems will strongly be related to those that are solved in class during the lectures and labs, 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 best out of 4 tests

Final Exam (50%): three-hour closed book exam based on the whole term

Course outline: Chapter 1-Probability Basics, Chapter 2-Mathematical Probability, Chapter 3-Combinatorial Probability, Chapter 4-Conditional Probability and Independence, Chapter 5-Discrete Random Variables and Their Distributions, Chapter 6-Jointly Discrete Random Variables, Chapter 7-Expected Value of Discrete Random Variables, Chapter 8-Continuous Random Variables and Their Distributions.

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 16, 2012.

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: umanitoba.ca/science/student/webdisciplinedocuments.html or through the Faculty of Science home page at: www.umanitoba.ca/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.