Lakehead University

Department of Mathematical Sciences

MATH-3334-WA – Introduction to Mathematical Statistics – Winter 2013

COURSE OUTLINE

Instructor: Dr. Deli Li, RB-2003, Ext. 8231,   dli@lakeheadu.ca

Note: If you e-mail me, please put "MATH-3334" in the Subject line so I can tell that your email is not spam.

Textbooks: *Probability & Statistics for Engineers & Scientists, 9th Edition* by Walpole, Myers, Myers, and Ye

Optional*:   Student's Solutions Manual*

Number of Credits: 0.5

Prerequisite: MATH-3332

Course Topics: This course is a mathematical introduction to the theory and applications of statistics. The objective of this course is to gain a sound understanding of the fundamental concepts of statistics as well as their applications. Basically it will cover Chapters **8 – 16**. The instructor reserves the right to add or delete sections to the list. Topics include descriptive statistics, sampling distributions, point and interval estimations, hypothesis testing and inferences on population parameters (such as population means, population variances, population proportions, etc.), simple linear regression and correlation, multiple linear regression models, analysis of variance, factorial experiments, categorical data, the contingency table test, etc.

Lectures: **Monday, Wednesday, and Friday 10:30 AM - 11:30 AM in SN-2011** Attending lectures is not compulsory. According to historical records, however, there is a positive correlation between the regular lecture attendance and the final course mark. Pre-reading related sections in the textbook is expected.

Labs: **Monday 09:30 AM – 10:30 AM in RB-3044** During the lab hours, you will meet your instructor and ask questions about the course materials and even get help to finish your assignments. If there is no student showing up during the first 5 minutes, this Q's and A's will be moved to RB-2003 (the instructor's office).

Office Hours: **Tuesday & Thursday 02:30 PM - 04:30 PM or by appointment.** For an appointment, please email the instructor.

Course Requirements

Six Assignments (20%): **Each assignment will be assigned to the class during the Wednesday lecture period and is due on the Friday next week.** Assignments should be dropped in the MATH 3334 assignment box on the second floor of Ryan Building before the due time or simply bring them to Friday's labs. All assignments, hand written or printed, should have a cover page with information including: course number, assignment number, student's name, and student's ID number. **Late assignments will not be marked under any circumstances. Sloppy writing may face a mark penalty up to 20%.** The lowest assignment mark of each student will be dropped for the final mark calculation.

Midterm Exam (25%): The midterm exam will be written during the regularly scheduled class time **(10:30 AM – 11:30 AM in SN-2011)** on **Wednesday 13 February 2013. No make-up test is provided for students who miss writing the test at the scheduled time.** If there is a legitimate (documented) excuse, the final mark will be calculated on the basis of the final exam. Otherwise, a grade of **0%** for the missed exam will be averaged with other grades.

Final Exam (55%): The final exam will be written in the scheduled three hours. It will cover all of the course material. Further details will be provided closer to the exam date.

Note: Exams will be entirely open-books and open notes. You may need a nonprogrammable calculator for some questions. However no examination aides other than those specified are permitted.

Marking Disputes: If you feel you have been treated unfairly in the marking of the midterm exam or an assignment, put your complaint in writing on the front of the paper and return it to the instructor. Do not put it back in the Assignment Box.

Drop Date: The final date to withdraw from this course without academic penalty is Friday 15 February 2013.

Academic Dishonesty: All cases of academic dishonesty will be dealt with according to the University's Code of Student Behaviour and Disciplinary Procedures, copies of which are available from the Registrar.