Lakehead University

Department of Mathematical Sciences

MATH-3334-WA - Introduction to Mathematical Statistics - Winter 2020

COURSE OUTLINE

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

Notes: 1. If you e-mail me, please put "MATH-3334" in the Subject line so I can tell that your email is not spam.

2. This course outline is subject to change. Changes will be announced by emails.

Textbooks: Book 1 Introduction to Probability and Statistics, 4th Edition,

by J. S. Milton and Jesse C. Arnold

Book 2 Student's Solution Manual for Book 1

Credit Weight: 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 6 - 15 of the textbook 1. The instructor reserves the right to add or delete sections to the list. Topics include 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:

Tuesday and Thursday 05:30 PM - 07:00 PM (06 January – 03 April) in RB-1021 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:

Tuesday 11:30 AM - 12:30 PM (06 January - 03 April) in RB-3026

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 the instructor's office (RB-2003).

Office Hours:

Tuesday & Thursday 02:00 PM - 4:00 PM or by appointment. For an appointment, please email Dr. Deli Li

Problems that you are having with the course should be either

- a) given to your instructor in class, or
- **b**) left in Dr. Deli Li's mail-box in the Math Secretary's office RB-2012.

If you are having a problem then most likely other people in the class are having the same problem, thus it will be worth to take class time to discuss the problem. If I don't discuss your problem in the lecture to your satisfaction please come and see me in my office during the office hours.

Performance Evaluation

Six Assignments (20%):

A list of assignment problems will be emailed you

It will be your own interest to try to work on the problems yourselves. Solutions to some selected problems will be discussed in the labs. For this reason it is in your interest to attend your labs. Assignments should be dropped in the MATH-3334-WA assignment box on the second floor of Ryan Building before the due time or simply bring them to Thursday's lectures. 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%. Each student's lowest assignment mark will be dropped for the final mark calculation.

Midterm Exam (25%):

The midterm exam will be written during the regularly scheduled class time on Thursday 27 February 2020 (05:30 PM - 07:00 PM in RB-1021). No make-up test is provided for any student who misses writing the midterm exam 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.

Notes: Exams will be open books and a non-programmable calculator is allowed.

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.

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.

Notes: Lakehead University is committed to achieving full accessibility for persons with disabilities. Part of this commitment includes arranging academic accommodations for students with disabilities and/or medical conditions to ensure they have an equitable opportunity to participate in all of their academic activities. If you are a student with a disability and think you may need accommodations, you are strongly encouraged to contact Student Accessibility Services (SAS) and register as early as possible. For more information, please contact Student Accessibility Services

http://studentaccessibility.lakeheadu.ca (SC-0003, 343-8047 or sas@lakeheadu.ca)

Winter 2020 Term Important Dates

First Day of Classes Monday, January 6, 2020 Final Day of Classes Friday, April 3, 2020

Final Date to Register

(Add) Friday, January 17, 2020 Final Date to Withdraw

(Drop) Friday, March 6, 2020

Monday, April 6, 2020 - Sunday, April 19, 2020 (10 days - No exams

Examination Period April 10-13)

Exam Contingency Date Monday, April 20, 2020 Marks Due Monday, April 23, 2020