Department of Mathematical Sciences, Lakehead University
MATH 2321 – Statistics – 2011-2012
Course Outline

Instructor: Dr. Xuemao Zhang
Office: RB-2006   **Phone:** ext. 8822   **Email:** xzhang10@lakeheadu.ca
Office hours: Wednesdays 2:30PM - 3:30PM (Other times by appointment)

Lectures: MWF 01:30PM - 02:30PM (RB 2047)
Labs: Th   11:30AM - 12:30PM (UC 2011)

Course Website: http://webct.lakeheadu.ca/webct/public/home.pl
Prerequisites: MATH 1160.
Textbook: "*Introduction to Probability and Statistics*" (**Second/** Preliminary Canadian Edition by
          Mendenhall, Beaver, Beaver and Ahmed).
Software: R (free software: http://www.r-project.org/)
          Reference: "*Introduction to Probability and Statistics Using R*" (by G. Jay Kerns) that can
          be downloaded from http://cran.r-project.org/web/packages/IPSUR/vignettes/IPSUR.pdf

Course content: This course is an introduction to the theory and applications of statistics. Topics include probability concepts, probability distributions, descriptive statistics, sampling concepts, estimating parameters, testing hypotheses, inference, analysis of variance, goodness-of-fit test, the contingency table test, linear regression and correlation, nonparametric statistical methods, etc. Basically we will cover Chapters 1-15. The instructor reserves the right to add or delete sections to the list. The objective of this course is to gain a sound understanding of the fundamental concepts of statistics as well as their applications.

Remarks:
(1) 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.

(2) 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, the Q's and A's will be moved to the instructor's office (RB2006).

(3) If you are having difficulties with anything and cannot see me during office/lab hours, please try to visit LUMAC (Lakehead University Math Assistance Centre) located in the Learning Commons of the library (LI 1005) for free help, Mon-Fri 2pm-5pm.

Important Dates:
Sept 12: First day of classes
Sept 23: Last day for registration
Feb 3:   Last day to withdrawal without academic penalty
Apr 5:   Last day of classes

Performance Evaluation:

Assignments	10%
Midterms (Oct. 21 & Feb. 17)	20%
Semi-Final Exam	30%
Final Exam	40%

<u>**Twelve Assignments**</u> (10%):
Each assignment will be assigned to the class during the Friday lecture period and is due on or prior to the following Friday 11:30 AM. Assignments should be dropped in the MATH 2321 assignment box on the second floor of Ryan Building before the due time or simply bring them to Wednesday'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 of up to 10%.** Each student's two lowest assignment marks will be dropped for the final mark calculation.

<u>**Two Midterm Exams**</u> (10% for each):
The two midterm exams will be written during the regularly scheduled class time on Friday **21 October 2011 (01:30 PM - 02:30 PM in RB 2047) and Friday 17 February 2012 (01:30 PM - 02:30 PM in RB 2047**). Each midterm exam will cover the material taken in each first half semester. **No make-up test is provided for any student who misses writing any midterm exam at the scheduled time.** If there is a legitimate (documented) reason, the final mark will be calculated on the basis of the remaining midterm (if there is any), semi-final and final exams. Otherwise, a grade of 0% for the missed exam will be averaged with other grades.

<u>**Semi-Final and Final**</u> (30% for semi-final and 40% for final):
Both exams will be written in the scheduled three hours. The December (2011) semi-final exam will cover the material you will have studied in Fall-Semester 2011 and the final exam in April 2012 will cover the whole course. Further details will be provided closer to the exam dates.

All examinations will be open book and a non-programmable calculator is allowed.