Quantitative Method for Health Scientist

Instructor: Radcliffe A. Siddo
Office: Bora Laskin (BL) 1027   **Tel.:**343-8701   **Email:** rsiddo@lakeheadu.ca

Course Description: This course is an introduction to elementary statistics which will include topics such as: measurement in statistics, frequency distributions and graphs, data description, probability, normal distribution, confidence interval, hypothesis testing, correlation and regression, Chi-square and Analysis of Variance (ANOVA).

Lectures and labs schedule for Math 0212-FA: **Lectures:** When: Tuesdays & Thursday; Time: 4:30 – 6:00 PM; Where: Upper Lecture Theatre (UC) 2011
Labs: When: Wednesday; Time: 11:30 AM – 12:30 PM; Where: Ryan Building (RB) 1042

Office Hours:
        When: Fridays; Time: 11:00 AM – 1:00 PM; Where: BL 1027

Email Communication: You can send an email any time. However, when sending an email regarding this course, include course number, your name and keyword in the subject line. For instance, "Subject: Math 0212, Cory Wittacker, how to calculate the p-value". (otherwise your message will NOT be answered.)

Course Materials:
Textbook: Allan G. Bluman & John G. Mayer, Elementary Statistics: A step by step
        approach (Canadian Edition), McGraw Hill Ryerson, 2008.
Calculator: Texas Instruments TI-30X II S or any scientific calculator.

Instructor's expectation from the student:
  1. Private discussions and/or conversations are NOT permitted during lecture time;
  2. Cell phones are to be turned off during lecture time;
  3. Students should attend all lectures and lab sessions;
  4. Review the course materials and do the homework questions after each lecture, not the day before the due date. Practice all the assignment questions asterisk or non-asterisk.

Course Evaluation:

Assignments	20%
Midterms (Oct. 14th & Nov. 11th)	40%
Final Exam	40%

Assignments:
  1. Assignment problems are shown below in this outline with the specified due dates. The questions that are stared (*) will be marked. However, students are expected to complete all the assignment questions. There is a drop-off box at the hallway, 2nd floor of the Ryan Building. Absolutely, NO late assignments under any circumstances will be accepted past

the specified due date. A mark of zero will be given. There will be a total of 6 assignments worth 20% of your final mark. I will drop your lowest assignment mark.
2. All assignments MUST include a cover page with course number, assignment number, student's name, and student's ID number.
3. Any indication of academic dishonesty will receive a mark of zero for the course.

Schedule (subject to change)

Week	Date	Chapters	Assignment Questions (Due Dates)
1	Sept. 13th	The Nature of Probability and Statistics	Assignment #1 (Due: Sept. 28th) p.22 #2,4,16*,18*,24*
2	Sept. 20th	Frequency Distributions and Graphs	p.39 #2,8,12*,18* p.50 #2,10*,16* p.65 #6*,12*,18*
3	Sept. 27th	Data Description	Assignment #2 (Due: Oct. 12th) p.92 #8,14,26*,34 p.110 #4,8,14*,24,34* p.125 #12,22*,30 p.131 #4,16*,18
4	Oct. 4th	Probability and Counting Rules	p.157 #8,16,22,32* p.165 #2,16*,24 p.178 #12*,22,34* p.189 # 6, 36*
5	Oct. 11th	Discrete Probability Distribution	Assignment #3 (Due: Oct. 26th) p.212 # 2,10,20* p. 221 #4,10*,18 p. 230 #4,12,26*
6	Oct. 18th	The Normal Distribution	p. 259 #2,8,16,22*,30*,38,42* p.267 #2,12*,26 p.278 # 10,12*,24* p.286 #6,10*
7	Oct. 25th	Confidence Intervals and Sample Size	Assignment #4 (Due: Nov. 9th) p. 305 #12*,18*,24 p.311 #6,20* p.318 #8, 18* p.324 #4,12*
8	Nov. 1st	Hypothesis Testing	p.345 #4,8,10* p.355 #8,20*,24 p.365 #10,14,20* p.371 #6,14*,20 p.381 #8,14*
9	Nov. 8th	Testing the Difference Between Two Means, Two Variances, and Two	Assignment #5 (Due: Nov. 23rd) p.405 #4,12,20* p. 414 #10*,16*

		Proportions	p.437 #6*,10,18*
10	Nov. 15th	Correlation and Regression	p.465 #2,4,8,14,22,26* p.475 #8,14*,24,32* p.484 #10*,16,20*
11	Nov. 22nd	Chi-Square	Assignment #6 (Due: Dec 6th) p.508 #2,4,8*,16* p.519 #2,6,14*,20*,26*,30*
12	Nov. 29th	Analysis of Variances (ANOVA)	p.540 #8,14*,18*

Midterm and Final Examination:
There will be two one hour midterm exams scheduled for **Oct. 14th** (chapters 1- 4) and **Nov. 11th** (chapters 5 – 8) and a three hour final exam (chapters 1 – 12, but more emphasize on chapters 9 - 12). All exams are closed book. For the final exam each student is allowed to bring 2 pages (letter size, both sides) of personal study notes, formulas and a non-programmable calculator.