INTRODUCTION TO STATISTICS (3)

Class Number: 4109   *Delivery Method: In Person*

COURSE TIMES + LOCATION:

Mo, We, Fr 9:30 AM – 10:20 AM

BLU 9660, Burnaby

EXAM TIMES + LOCATION:

Dec 8, 2016

12:00 PM – 3:00 PM

SSCB 9200, Burnaby

INSTRUCTOR:

Scott Pai

Description

CALENDAR DESCRIPTION:

The collection, description, analysis and summary of data, including the concepts of frequency distribution, parameter estimation and hypothesis testing. To receive credit for both STAT 100 and STAT 101, STAT 100 must be taken first. Intended to be particularly accessible to students who are not specializing in Statistics. Students with credit for any of ARCH 376, BUEC 232, STAT 201, 203 or 270 may not subsequently receive credit for STAT 101-3. Quantitative.

COURSE DETAILS:

This course may be applied to the Certificate in Liberal Arts

Lab Instructor: Marie Loughin

Outline:

Aimed at a non-mathematical audience, this course discusses procedures that are most commonly used in the summary of statistical surveys and in the interpretation of experimental data. The rationale for these procedures is explained in detail, but the use of mathematical formulas is kept to a minimum.

The course will include an introduction to JMP, a computer package for statistics. You will have access to the computers in the STAT Workshop.

1. **Exploring Data:**   Graphing data, measuring the centre and amount of spread in data, the normal curve.
2. **Exploring Quantitative Relationships:** Plotting and summarizing the relationship between two variables or categorizations.
3. **Producing Data:** Discussion and comparison of observational studies, sample surveys, and controlled experiments.
4. **Probability and Chance Variation:** Basic concepts, probability rules, basic probability calculations, the "law of averages", and the normal and binomial distributions.
5. **Basic Statistical Inference:** The basic reasoning involved in drawing statistical inferences with applications to a mean, a difference of means, a proportion, and a difference between proportions.
6. **Inference on Relationships:** Basic inference procedures on the relationship between to variables or categorizations.

Grading

Homework	15%
Midterm 1	20%
Midterm 2	20%
Final Exam	45%

Materials

REQUIRED READING:

Required Textbook:

The Basic Practice of Statistics (7th ed.) by D. S. Moore, W. I. Notz, and M. A. Fligner. Publisher: W.H. Freeman Publishers
The textbook package is available at the SFU Bookstore. Alternately, students may purchase the online text and resources (StatsPortal) at the Freeman website: http://www.bfwpub.com/