STAT 203
Introduction to Statistics for the Social Sciences

Students requiring accommodations as a result of disability, must contact the Centre for Students with Disabilities 778-782-3112 or csdo@sfu.ca

This course may be applied to the
Certificate of Liberal Arts

Instructor: Dr. David Campbell (Surrey)
Lab Instructor: Robin Insley

Prerequisite:

Students in Sociology and Anthropology are expected to take SA 255 before this course. Students with credit for STAT 101, 102, 103, 201, 270, ARCH 376 or, BUEC 232 (formerly 332), may not subsequently receive credit for this course. Recommended: a research methods course such as SA 255, CRIM 120, POL 213 or equivalent is recommended prior to taking STAT 203. Intended to be particularly accessible to students who are not specializing in Statistics.

Textbook:

Elementary Statistics in Social Research (11th ed) by Jack Levin, James Fox & David R.Forde, Publisher: Allyn & Bacon

I>Clicker's are required for this course at Surrey Campus.

Calendar Description:

Descriptive and inferential statistics aimed at students in the social science that are most commonly used in research in the social science rationale for these procedures is explained in detail but the use of mathematical formulas is kept to a minimum. STAT 203 is a satisfac prerequisite for STAT 302.   stand deviations, and the normal approximation. Applications to the summary of social and political surveys.

3. **Correlation and Regression**
   The correlation coefficient is introduced as a measure of the strength of association between two quantities; the regression line, as a gr averages. Deviations from this line are discussed. Use of these techniques in formulating causal hypotheses based on studies in social

4. **Probability**
   Methods are presented for computing the probabilities of chance occurrences. Examples are introduced which explain how probability model the unpredictability of human responses.

5. **Chance Variability**
   Fallacious interpretations of "The Law of Averages" are brought to light, and the predictable patterns that do indeed emerge in repetiti chance experiments are discussed. The use of aggregation as a method for concentrating information from widely variable measureme as are encountered in social surveys.

6. **Sampling and Chance Models**
   The concept of a sample survey is studied from the design stage through the conduct of the survey to the analysis of the results. Specia is given to the role of chance errors on the accuracy of the results. Application to large scale surveys, such as are done regularly by Sta Canada, are discussed.

7. **Estimation and Tests of Significance**
   Elementary methods of analyzing the results of controlled experiments and observational studies are presented. Standard t-tests, chi-sc and related confidence intervals are introduced with emphasis on the role of the chance model, and the interpretation of the results. Me distinguishing reproducible trends from those that are temporary and due to sampling error are examined. Applications to surveys in sc criminology and political science.

Grading Scheme:

The grading is subject to change.
Assignments – 10%
2 Midterms – 20% each
Final – 50%

Students should be aware that they have certain rights to confidentiality concerning the return of course papers and the posting of marks. Please pay careful attention to the options discussed in class at the beginning of the session. Students are reminded that Academic Honesty is a cornerstone of the acquisition of knowledge. Scholarly integrity is required of all members of the University. Please consult the General Guidelines of the calendar for more details.

Revised June 2010