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. Special attention 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 Statistics Canada, are discussed.

7. Estimation and Tests of Significance

Elementary methods of analyzing the results of controlled experiments and observational studies are presented. Standard ttests, chi-square tests, and related confidence intervals are introduced with emphasis on the role of the chance model, and the interpretation of the results. Methods for distinguishing reproducible trends from those that are temporary and due to sampling error are examined. Applications to surveys in sociology, criminology and political science.

Grading Scheme:

Surrey & Vancouver Sections

Assignments – 15% 2 Midterms – 20% each Final – 45%

The grading is subject to change.

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 semester. Students are reminded that Academic Honesty is a cornerstone of the acquisition of knowledge. Scholarly integrity is required of all members of the University. Students are encouraged to review policies pertaining to academic integrity available on Student Services webpage at <u>http://students.sfu.ca/academicintegrity.html</u>

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