COURSE STRUCTURE AND OBJECTIVES

This course is designed to be an introduction to statistics in the social sciences: it will present basic statistical procedures and principles, and their applications and interpretations in the field of Sociology. By fully engaging this course, students will acquire a valuable set of tools that will allow for the pursuit and critical evaluation of quantitative research via an understanding of appropriate methods of describing data, techniques of measuring relationships between variables, and the logic of predicting population characteristics from samples. The Sociological Tradition is strongly attached to statistical methods and associated logic: the work of primary social scientists such as Karl Marx, Adam Smith, Max Weber, and Emile Durkheim strongly promoted and/or utilized quantitative analysis; and in recent decades the majority of articles published in the American Sociological Review, the American Journal of Sociology, and Social Forces – often considered the flagship Sociology journals – have included at least one of the statistical methods that will be presented in this class. Thus, this course is an essential part of understanding the field of Sociology and methods of answering sociological questions.

This course is designed around the notion of modeling: statistics can serve as easy-to-understand models of the complex conditions and relationships in the social world. The topics covered will focus on the description of variable distributions via central tendency and variation, and the technique of regression as an inferential, predictive tool; with additional attention given to hypothesis testing and confidence intervals, correlation and association measures, and the chi-square statistic. Together, these statistics form the common set of tools that social scientists use to model society and analyze quantitative data. It is important to note that these are practical skills that can be used in other courses, academic research, and many careers. While this is a required course for the completion of the Sociology major, it is also a course that can build toward an occupation and be the source of many practical opportunities.

This course will incorporate both hand calculation of statistics and the use of SPSS – a powerful and popular statistics program. The data analyzed in the course will include elements of the United States Census, the General Social Survey, and data from the World Health Organization concerning individuals, groups, and nations. We will examine aspects of this data through class assignments - and I encourage students to explore this data to consider and test theories and principles of Sociology and stretch their sociological imagination. Further, students will spend time reading and interpreting statistics as they are used in current sociological research in order to ground this material in the discipline.

COURSE PREREQUISITES

Principles of Sociology – Soc 151 – is the sole course prerequisite for Social Statistics. The math components of this statistics course are based upon the basic procedures of addition, subtraction, multiplication, division, exponentiation, roots, and simple algebra. As such students with an understanding of these math skills can excel handily in this course – and calculators will almost always be allowed as tools to solve math. This is not designed to be an advanced math course: it is a course that applies basic math skills.

STATISTICS LAB

This course includes a 50 minute lab that meets once per week. This lab is specifically designed to be a presentation of the use of the SPSS software. It will serve to review the topics discussed in class via this statistical package and to develop proficiency with the software as a tool for problem solving.