

Course Prefix & Number SOC 364 – Data Analysis in Sociology

LEARNER OUTCOMES	ASSESSMENT
Identify patterns in social data using graphical displays.	Students will create, analyze and interpret graphical analyses of social data using dot diagrams, stem-and-leaf plots, histograms, bar plots, box-and-whisker plots, frequency polygons, and scatter plots.
Identify patterns and relationships among variables by listing and grouping social data.	Students will create, analyze and interpret frequency distributions, cumulative frequency distributions, and cross-tabular distributions.
Describe social data using measures of central tendency and dispersion.	Students will calculate and interpret the mean, median, and mode, proportions and percentages, the range and interquartile range, the index of qualitative variation, and the standard deviation.
Summarize patterns and relationships in social data using probabilities and odds.	Students will calculate and interpret probabilities, conditional probabilities, odds, conditional odds, and marginal odds of social data displayed in frequency and cross-tabular distributions.
Identify, define, and explain the concepts and logic used in statistical inference.	Students will calculate the mean and standard deviation of sampling distributions drawn from a normal population, noting the shape of the sampling distribution and relating their findings to the Central Limit Theorem.
Estimate the population parameter of a sociological variable using sample data.	Students will calculate and interpret point estimates and confidence intervals of means and proportions.
Conduct hypothesis tests of population values based on sample data.	Students will calculate and interpret significance tests, hypothesis tests concerning means, and hypothesis tests concerning proportions.
Summarize the relationship between two or more quantitative sociological variables.	Students will conduct correlation and regression analyses.