

**The Honors Student will prepare a statistical report assumed to be presented to the President of a small college.**

1. Using the qualitative data Year from the data set; the frequency table, bar chart, and pie chart will be displayed and analyzed.
2. Using the Instructor ratings, the following will be displayed: descriptive statistics, dotplot, histogram, and boxplot. Each will be analyzed, especially with regard to outliers.
3. Using the Instructor ratings, a t-distribution confidence interval for the mean rating for Instructor will be calculated and explained.
4. Using the Manner ratings, a t-distribution confidence interval for the mean rating for Manner will be calculated and explained.
5. Using the ratings of Manner and Instructor, the scatterplot will be displayed (with Manner as the independent variable). The Pearson correlation between Manner and Instructor will be calculated and a hypothesis test for significant correlation will be performed.
6. Using the ratings of Manner and Instructor, the linear regression equation will be determined, predictions will be found, and the coefficient of determination will be found and explained. The fitted line plot will be displayed. Any outliers will be identified.
7. Using the data of Interest, Manner, and Instructor, ANOVA hypothesis test will be performed to determine if there is a significant difference among means of these ratings. The ANOVA table will be displayed as well.
8. Using the results from the Frequency Table of the variable Year, a Chi-Square Goodness of Fit hypothesis test will be performed to determine if the categories occur in equal frequencies. The Chi-Square table will be displayed as well.

The report should be prepared with care, and should be a glimmer of the amount of work needed for a Master's thesis, especially the burden of entering 730 items in statistical software.