Instructor Name: Steven V. Hernandez

Course Name: Introduction to Statistics

Course Description: This hands-on course will introduce participants to common descriptive and inferential statistical analyses. In addition to covering the concepts behind each method, we will also practice applying them on real datasets using Microsoft Excel. Sufficient time will be spent on understanding relevant assumptions and how to correctly interpret the results of each analysis. The specific topics covered in this course include: describing and visualizing data, t-tests, ANOVA, chi-squared test of independence, correlation, and linear regression. Optional "homework" will be offered after each class day for those who want additional practice applying the techniques discussed.

Day 1:
- Understanding and classifying data
- Descriptive statistics
- Displaying data

Day 2:
- The normal distribution and Central Limit Theorem
- Hypothesis Testing
- One-sample t tests and confidence intervals

Day 3:
- Two-sample t tests
- Single factor ANOVA
- Chi-squared test of independence

Day 4:
- Correlation
- Regression
- Other topics, as time allows