Instructor Name: Sarah Collins

Course Name: Statistics for the Dissertation

Course Description:
A comprehensive review of common statistical techniques for PhD students in non-mathematically leaning fields. We will cover methods that may be useful as they design their dissertations such as t tests, linear and multiple regression, various correlation equations (Pearson, Spearman, point-biserial), logistic regression, ANOVA, and ways to apply these in combination with qualitative research. An emphasis will be place on learning how to interpret the terms associated with these methods.

Day 1:
- An introduction to the course
  - For each technique we will briefly look at equations, then dive into the intuitive background of what each is doing, then look at examples of how they were used in research with an emphasis on how to interpret the results provided, followed by a chance to brainstorm how these could be applied to the research interests of those in the group, including the integration with qualitative methods
- Standard deviations
- Correlation methods (Pearson, Spearman, point-biserial, phi)

Day 2:
- Hypothesis testing
  - Writing hypotheses
  - The concept of significance
  - p-values
- T tests

Day 3:
- ANOVA
- MANOVA

Day 4:
- Regression methods
  - Linear
  - Multiple
  - Logistic