**Logic of Inquiry**

What is quantitative analysis and what does it do?

What are the basic assumptions of regression and what is BLUE?

**OLS Regression**

What is OLS regression and how does it work?

What does BLUE mean and how does that relate to the eight assumptions of OLS regression?

How are categorical variables included in OLS?

What is the point of an interaction affect?

What are some applications or examples from your own work or from what you’ve read?

**Logistic Regression**

What is Logistic Regression and how does it differ from OLS regression?

What are the difficulties of interpreting logistic regression?

How is logistic regression estimated?

What are some applications or examples from your own work or from what you’ve read?

**Hierarchical Linear Models**

Why is HLM and what are the four basic assumptions?

What type of estimation is used in HLM?

Discuss how to construct an HLM model.

What are the benefits of using HLM and when can OLS with standard clustered errors be used instead?

What are some applications or examples from your own work or from what you’ve read?

**Spatial Regression**

What is spatial regression and why should we use it?

What is spatial lag and spatial error?

What is the difference between the two and how do you know which to use?

What is GWR and when should it be used?

**Missing Data**

What are the common problems with missing data?

What are the three main types of missing data?

What are some strategies to address these problems?

How can we better think about missing data as it relates to our work?