Introduction to Research Design

February 2015

Session 1. Formulating Hypotheses
In this session, we will discuss the principles of good hypothesis design and the process of preparing hypotheses for empirical evaluation.

Instructor: Professor Allen Hicken, University of Michigan

Session 2. Introduction to SPSS
We will review introductory SPSS skills to prepare for the work of the remaining sessions.

Instructors: Professor Ashley Jardina, Duke University & Nicole Yadon, University of Michigan

Session 3. Measurement
How do you know when something happens in the real world? Surveys have specific strengths and weaknesses when it comes to measuring what people think and do. We will define measurement and then talk about some specific challenges and opportunities associated with surveys in this regard.

Instructor: Professor Nicholas Valentino, University of Michigan

Session 4. Causal Inference
In this session, we will discuss the criteria for establishing causality and discuss how to address the issue of confounding variables.

Instructor: Professor Allen Hicken, University of Michigan

Session 5. Sampling
In this session, we will provide an introduction to the process of selecting for study units from populations of interest.

Instructor: Professors Ted Brader, University of Michigan

Session 6. Hypothesis Testing
In this session, we will develop the ideas we discussed in Session 2 and discuss the statistical tools for evaluating hypotheses.

Instructor: Professor Ted Brader, University of Michigan

Sessions 7. Ordinary Least Squares Regression
In this session, we will discuss the fundamentals of regression analysis from bivariate least squares analysis to multivariate regression. We provide an overview of the strengths and weaknesses of these methods.

Instructor: Professor Nicholas Valentino, University of Michigan

Session 8. Logistic Regression and Chi-square

Instructors: Dr. Le Trung Kien and Dr. Mohammad Nizamuddin Khan, SESRI